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Original Articles.

A CASE OF PUERPERAL CONVULSIONS.

A Paper read before the Allen County Medical Society, September 2d, 1884.

By H. V. Sweringen, A. M., M.D., Fort Wayne, Ind.

At 8 o'clock, Saturday morning, August 30th, 1884, a telephone message was received at my residence during my absence, to come at once to No. 153 Montgomery street. In the course of twenty or thirty minutes later another message was received, answered, and the communication shut off just as I was entering the gate of my premises.

Having several weeks previously been engaged to attend, at the number and street above given, a Mrs. C., a primipara, aged 28, in her approaching confinement, I concluded she was in labor and accordingly went at once.

Reaching her residence, I was informed by her mother-in-law, aunt and sister-in-law, that when the former entered her room a short time prior she found the patient on the bed in a spasm or fit. Upon inquiry I learned that she had, for four or five weeks, complained of great distress in her head, loss of memory, confusion of thought and impairment of vision; the latter was so great that at times, when walking upon a level surface, she would lift her feet as in ascending a stairs or a hill. Her aunt often desired her to call her physician, but she supposed her head pain to be simply a neuralgia and her other troubles to be more or less due to her condition and would in due time disappear. She was, however, not a little apprehensive, fearing at times that she would not live through her lying-in, having lost a half-sister from puerperal eclampsia.

Noticing considerable puffiness of her eye-lids, hands and feet, which, she said, had existed for some time, I now inquired if she had passed her usual amount of water in the twenty-four hours; the reply, from one of the attendants, was that she was on the vessel nearly all the time. Requesting a sample of her urine, was informed that the vessel which contained it had just been emptied. I was also informed that a short time prior several spontaneous copious movements of her bowels occurred. Nature having evidently been at work endeavoring to better her condition by relieving her kidneys. It was said that while a girl she suffered

for a long time with kidney and bladder trouble, for which she had taken a great deal of buchu and like remedies.

Her pulse was full, hard, quick and no evidence whatever existed of the commencement of labor; a digital examination revealed only a tightly closed os uteri and the child's head high up.

I now informed the friends present of the extremely dangerous condition of my patient, and that the very best treatment in my opinion was to induce premature labor as speedily as possible, as she was very liable to rapidly repeated convulsions which would soon prove fatal. I cited them to a case which recently died in Cleveland and was brought to this city, her home, for interment, in which the first convulsion occurred three weeks before delivery, the physicians in the case preferring to adopt the "waiting for nature" method of treatment, applying their remedies to effects or symptoms rather than to their cause.

The husband, who is in the employ of one of our railroads, being away from home, was now telegraphed for, and a message was sent also to her parents, who reside in Delphi, Ind., and I was requested to await their arrival before commencing any radical treatment.

Not wishing to assume exclusively the responsibility of the case, I told them I would call in Dr. McCausland to assist me, who I now learned had already been summoned when it seemed probable that my services could not be immediately secured.

I proceeded to Dr. J. W. McCausland's office and asked him to visit the patient, to take with him a bottle of Squibb's chloroform and to remain with her until I returned with my instruments for dilatation and delivery. The Doctor, having a predilection for Nichols' ether instead of Squibb's chloroform, procured a bottle of that and started.

In due time I returned with a uterine dilator, a pair of long forceps and a pair of ordinary uterine dressing forceps, which, I thought, might in some measure supplement the service of the dilating instrument, the capacity of which was limited.

Inasmuch as she was seemingly in a little more comfortable condition than when I left, although not a little confused, remembering little that had so recently transpired, and as the husband could not reach home until 11 o'clock a.m., which time was now near at hand, we concluded to give her a hypodermic injection of morphia and leave her for the time being.

About noon I received a message announcing the husband's arrival and his request for my immediate presence. Telephoning Dr. McCausland to meet me at the patient's residence at once, I departed for that place, taking with me Lusk's "Midwifery," in order to convince the husband that the course I desired to pursue was by no means entirely unfounded.

I told the husband that the great majority of physicians would advise

him to wait until natural labor set in, and, in the meantime, employ only palliative measures and hygienic precautions. I then read to him the following from Lusk: "The weight of authority, it seems to me, is favorable to procrastination, the interruption of pregnancy being regarded as an extreme measure, justifiable only in cases of utmost peril. But premature labor, with the indications thus limited, is not likely to save many lives. My own convictions are clear that, so soon as grave cerebral symptoms develop, the period of folded hands has passed. The relief to be obtained from chloral and catharsis is, as a rule, of short duration, and we cannot go on giving chloral and cathartics to the end of gestation, nor are we sure that the first fortunate results can be reduplicated. * * * Where medical treatment alone is employed it is certain that, in the absence of labor-pains, a certain proportion recover, and pregnancy may go on to completion. On this account it is commonly advised not to introduce labor as a complication into a state of affairs already sufficiently dangerous and difficult to manage. So far as my own experience goes, however, the practice of waiting upon Nature has proved uniformly disastrous, while the induction of premature labor has furnished me with a certain proportion of recoveries."

Mr. C., who is a very sensible man, felt the force of these remarks and acquiesced in the course we thought best to pursue.

Without a moment's delay, further than to make known to the patient our intentions—of which, however, she now has no recollection—I introduced the dilator, and in a little time succeeded in accomplishing a dilatation of about the size of a half dollar, Dr. McCausland and myself manipulating alternately with instruments and fingers. We had not been at work long, however, until she went into a most violent convulsion, when the Doctor gave her nearly a half-grain of morphine hypodermically while I administered the ether. We now took advantage of her unconscious condition, deepened by anæsthesia, by continuing our efforts at dilatation, until we reached a point at which we could make no further progress, when we ruptured the amniotic sac and concluded to watch and wait a time with patience, trusting that nature would ere long supplement our efforts. It was now about 2:30 p.m. Introducing into the bladder a catheter, I drew off its contents, which consisted of about three ounces of urine of the color of coffee, not quite so dark, which Dr. McCausland took to his office near by, to which specimen of urine he applied heat and nitric acid, and returned, showing the sample to be completely loaded with albumen.

During the Doctor's absence I wrote the following prescription which, I thought, might prevent another convulsion, and, at the same time, favor further relaxation of the os, which was now a thick, rigid ring, a little larger than a silver dollar, waiting the action of the longitudinal uterine fibres to effect its thinning. The prescription was as follows:

℞. Potass. brom.,
Chloral hydrat., aa ʒiij
Morph. sulph., gr. i
Syr. tolutan, fʒ iv
Tinct. verat. virid.,
Tinct. digital., aa fʒ ij
Aqua cinnam., q.s., ad fʒ iv.

M. ft. sol. Sig. A tablespoonful in water as occasion required.

She now began to be extremely thirsty; every few minutes she would call for water and at intervals of about an hour would vomit apparently all that she ingested, so little of it being absorbed, which will account for the continuance and intensity of her thirst.

Either the doctor or myself was with her constantly; both were kept busy answering the anxious inquiries of friends, whom we had informed in the start that considerable time would probably elapse before the accomplishment of our object.

During the absence of the Doctor at tea, our patient had three slight pains; during my absence, subsequently, he counted four or five. Upon my return the Doctor again left, and I soon discovered that labor had undoubtedly commenced, her pains increasing in frequency and severity. But there was a very thick cervix to overcome and we did not expect sufficient dilatation until long after midnight.

Her sleep at times was very profound, her expirations occasionally protruding her lips and causing that blowing or puffing sound heard in cases of apoplexy or uræmia, although at no time, except during a fit or while under the influence of ether, did I consider her condition one of complete coma.

The night now began to wear heavily, it being difficult for all save two or three of the considerable company to keep awake. Not wishing to wake the Doctor, who was now enjoying, in the sitting posture (there being but few beds in the house and they all in use), a short nap, I proceeded to apply cups over the region of the kidneys, having just previously again emptied her bladder and found no change in the quantity or quality of her urine. I used two large tumblers for this purpose. In the course of a half an hour or more I had the attendants seat her over a vessel containing boiling water, at which time she seemed for the first time to discover the tumblers still adhering to her back, when she asked the why and wherefore of their presence, and upon being informed remarked that "they would answer very well for a bustle." These procedures seemed to afford her a great deal of ease and comfort and to hasten relaxation and dilatation. After a time in the sitting posture she felt faint, when she was replaced in bed. An examination now revealed the fact that there was a steady progress being made in her labor, it being now about 2 o'clock a.m. Having now fixed myself comfortably (?) on

three chairs, I was soon oblivious to my surroundings, and not until after daylight was I awakened by a vigorous percussion at the hands of the doctor, who informed me that our time had now come, which, on examination, proved to be true, but with no dilatation to spare. We, however, got her into the forceps position, and, while the doctor attended to the administration of ether, I applied the forceps and delivered a living female child which seemed to be very near its full time.

The mother and child are, at this writing, Monday night, about forty hours after delivery, doing as well as could be expected. I herewith exhibit several specimens of her urine, tested by heat alone; one drawn a few hours before, the other a few hours after delivery. The latter, you will observe, is almost solid albumen, reaching to the neck of the sulphate of cinchonidia bottle in which it is contained, covered by a few teaspoonfuls only of clear fluid, and represents the entire amount drawn at this time which, it will be seen, is about three times the quantity of the preceding specimen. A subsequent drawing contains much less albumen than the former and the quantity of urine is much increased.

No more convulsions have occurred; her œdema has entirely disappeared; intellection is fast returning and it is interesting to note that she has no recollection whatever of periods of time in which she appeared and talked perfectly rational, as when before commencing our efforts to induce labor, in informing her of what we proposed to do, she told us "to do all in our power to save the babe." She remembers nothing that transpired in the interval which elapsed between a short period before her first convulsion and four or five hours after the child was delivered. Her temperature and pulse are nearly normal; for a few hours only was there any reactionary excitement; a cathartic of cream of tartar and jalap acted promptly; she now passes her urine unaided, and every specimen is more normal in quantity and quality; thirst and vomiting have subsided and the lochial discharge still continues; the cups upon her back produced two large blisters which were opened this afternoon; her appetite has returned and she now relishes what she never before liked, namely, sweet milk. She craves buttermilk, but is afraid to drink it; I believe she ought to, as a medicine; I never yet treated a case of albuminuria that did not crave buttermilk; containing albumen and other desirable elements, it would supply the great demand of her system, which is occasioned by a great waste. The disease seems to be a kind of albumino-anæmia. We know that any interruption of the circulation will cause dropsical effusions. The brain is composed almost entirely of albumen; it is a normal constituent of the blood; that the latter is interrupted in its circulation, is evinced by the œdema or slight general anasarca which occurs; that this circulation is interrupted by pressure, would seem proven by the fact that as pregnancy advances the effects gradually increase, the explosion generally taking place in the last weeks

of gestation, when the pelvic circulation is greatly disturbed. The brain now makes loud demands for its natural pabulum, albumen, and, being denied it, reacts on the nerves of special sense, and, in fact, the entire nervous system, motor and sensor, in some way by reason of this reaction, *forcing* a temporary supply, as when, in syncope from loss of blood, fainting will arrest for the moment the bleeding, and, by *forcing* the blood to the brain restore its functions. But the brain, by repeated efforts to maintain its nutrition, sooner or later exhausts itself and death ensues. I am well aware that this is not the explanation given in the books; indeed, no very great effort seems to have been made to clear up the etiology of this malady, as our authorities have little to say upon this branch of the subject, and that little is by no means satisfactory. There are, we are informed, a few cases in which albuminuria does not occur, and others that partake more of the character of uræmia, which facts would seem to render untenable the explanation we have given.

It may be asked, also, if pressure upon the renal or pelvic circulation be the cause of puerperal convulsions, why is the disease so comparatively rare? Why is not the malady more common? Why, indeed, is it not present in every pregnancy? The only reply I can offer to these questions, is, that in these cases, there may be some unusual distribution, arrangement or disposition of the vessels which render them peculiarly liable to the pressure of gestation, caused, it may be, by former customs or fashions of dress, tight-lacing, etc., or existing as mere anatomical anomalies that have escaped the notice of those who have studied the pathology of this disease, and that may be extremely difficult of detection, after the pressure has been removed; or, there may have been a pre-existing passive congestion or catarrh of the kidneys, a sub-acute nephritis which the condition of pregnancy aggravates by pressure, producing temporary, structural, kidney changes.

The same cause which produces albuminuria will, also, produce uræmia, which may account for the fact that, in some cases, the latter condition may exist without the former, and *vice versa*, the difference being governed more or less by the degree of pressure exerted and the character and importance of the vessels against which it is directed.

The successful treatment of any disease ought certainly to throw some light upon its etiology. "This I do know, that, whereas I was once blind, I now see" that in the cases that have come under my observation, the sooner they were delivered the better were the results; and I feel confident, that, in the case before us, our forcing Nature to expel the contents of the womb saved our patient's life.

P. S. It is now eight days since our patient was delivered, and I am happy to say that she and the baby are doing finely.

THE FORCEPS AND BUNN'S UTERINE SUPPORTER.

By J. M. WHITE, M.D., Pleasant Ridge, Greene Co., Ala.

In the *Medical and Surgical Reporter* of 1877, there was published a lecture by Dr. Wm. B. Atkinson on the Forceps. How closely this lecture has been read and followed by the profession I do not know. It is my humble judgment that some chapters on this subject in text books should be exchanged, and this lecture inserted instead. He believes it a valuable instrument to both the mother and child, and should be used early, and that the mother should not be allowed to become exhausted by protracted labor because the doctor having imbibed an immense mass of verbiage from books, is afraid to use them, thinking their use difficult. "Meddlesome midwifery" was a bugbear that had caused the death of many.

The mode of applying the forceps described in some books was confusing to the young and also to the old physician, and often deters them from using them until it is too late. Only one kind of forceps was needed, *e.g.*, the long forceps, so as to reach high up or low down. "With the head presenting, regardless of its position, the pelvis and head having such relation in size as not to preclude the use of the forceps; the os dilatable, the physician should apply this help and shorten labor at once."

He descanted upon the unnecessary amount of obscurity with which the books had invested the subject, making a large number of positions of head, in each of which the forceps were to be applied differently, necessitating a most exact diagnosis as to position, often an impossibility; requiring him to recall the special mode of fixing the blades in each of the positions.

Doctors should banish such ideas and regard the forceps as an instrument employed to extract a globular body from a chamber with a fixed form.

The forceps were formed to adjust their blades to that chamber. Hence while the blades would perhaps fit best on the sides of the head, they should be introduced into the pelvis solely in reference to the curve of the sacrum, catching the head as best they might. It is impossible to do anything else when the head is high up. The forceps should follow the curve of Carus, and the blades passed up along the pelvis, grasping the head as it might.

Those who insist on the other method, that where the blades must be placed upon the sides of a head, speak of the movement of the blades in the pelvic cavity as if they could be changed with freedom into almost any position. This is not possible.

In support of this theory I will give the following case. H. V., aged 30, stout, multipara, had been in labor 26 hours, pains irregular and patient almost exhausted, cold sweat, ergot would not bring on pains, as there was almost complete inertia. The attending physician, on account

of the head being high up, and the swollen condition of the vulva, could not diagnose, the position of the head, and, therefore, would not use the forceps. Remembering Dr. Atkinson', advice, I suggested to just run them in any way they would fit. The suggestion was followed and the woman delivered. She had, however, an adherent placenta. Waiting several hours, it would not come away, cold water and ergot would not bring it, and finally failing, we left nature to do the work. After resting and dieting for two days, the placenta came away.

The books talk about different *fancy ways* — ways immeasurable — of placing the forceps in the pelvis as though they had an ocean of space to work in. *They cannot go in but one way.*

In conclusion I would like to say a few words about Dr. D. B. Bunn's (Randall, Ark.) uterine supporter. It is simple and cheap, and as valuable as it is simple. It is easy of application, and can be applied by the patient after very little instruction. It is cleanly. In a case of prolapsus (partial) where the body of the womb was pressing on the bladder, causing painful micturition, and the os in the hollow of the sacrum, pressing on the enlarged prolapsed ovary, by applying the instrument properly, and packing cotton behind it, I relieved the ovaritis and painful micturition and held the womb in place.

August 19, 1884.

IS IT NECESSARY TO PERMIT WOMEN TO SUFFER DURING THE FIRST STAGES OF LABOR?

I. W. CHISHOLM, M.D., New Concord, O., Class of Jefferson Med. Col., 1868.

In answering this question I would say, from my own experience, and also from the observation of others with whom I have conversed on the subject, I have concluded that the pains incident to dilatation of the os during the first stage of labor are unnecessary.

My attention was first directed to this some years ago. Being called to see Mrs. G., whom I found suffering from the pains of the first stage of labor, being of the grinding character, and seemingly at regular intervals, I found, upon examination a rigid os and no signs of dilatation, and after waiting a considerable while I made another examination and found the same condition of things. I then concluded the pains were probably of the spurious kind, despite their seeming regularity, and gave her a dose of morphia, and in a short time she was entirely relieved and I took my departure. About ten o'clock in the evening I concluded I would call and see her before retiring, and on entering I found her resting comfortably, as she had been ever since I left in the morning after administering the morphia. I made an examination and found the os well dilated. I remained, and in a short time the second stage of labor came on, and the child was born in a few hours.

I was attending on Dr. P. at that time, and on calling on him in the

morning I reported the results of my observations, he being a man of a large and extended experience of thirty-five years, said that he also had noticed the same thing, and always attended by good recoveries.

Now if this is the experience of all who have tried it, why not relieve women of the painful ordeal of the first stage of labor?

August 23, 1884.

Society Reports.

NEW YORK OBSTETRICAL SOCIETY.

Stated Meeting March 18, 1884,

President, W. M. POLK, in the Chair.

OVARIOTOMY.

Dr. J. B. Hunter narrated two cases of ovariotomy, in both of which the patients died. The first case was that of an unmarried woman, thirty-five years of age, who for nine months (and, she was certain, for not more than nine months) had suffered from pain in the pelvic region. A tumor was noticed in the right side for the first time last December. She came under Dr. Hunter's care March 1st. After a careful examination he made a diagnosis of ovarian tumor, probably malignant. A consultation was held with two of his colleagues at the hospital, and they agreed that an operation was demanded, although the prognosis was unfavorable. There was some albumen in the urine. The operation was performed on the 10th of March. The usual abdominal incision was made. Some ascetic fluid was found, and a tumor of large size on the right side, extending up to the diaphragm and attached to the abdominal walls and the intestines. The contents were evacuated, and the adhesion separated without much difficulty or hemorrhage. The pedicle, which was short, was transfixed and tied. Another tumor, of about half the size of the first, was then found on the left side, including the left ovary. Both tumors were multilocular. The operation was not of long duration, but the patient's condition was very low; she had had a high temperature for some time before, and death took place ten hours after the operation.

There had been but little hemorrhage. The specimens had been examined by Dr. Welch, who pronounced the growth malignant.

The other case was that of an unmarried woman, eighteen years of age, who for some years had noticed some abdominal enlargement, which had increased decidedly during the last year. She had been a patient of Dr. A. N. Brockway. For the last year there had been a constant dull pain in the pelvic region, and for six weeks past a severe pain, requiring morphine for its relief. The tumor was so tense as to be readily mistaken for a fibroid. The patient had menstruated regularly, but had a metrorrhagia, lasting a month one year ago. Ether was given Febru-

ary 28th, as a satisfactory examination could not be made without it, in consequence of the pain it caused. The mass was central and so hard that it was still considered doubtful whether it was uterine or ovarian. The depth of the uterus was two inches and a half. From that time until the date of operation, March 12th, the temperature varied from 100° to 104°, with nausea and vomiting, notwithstanding the use of the cold coil and quinine, and constant severe pain. The tumor increased in size, and the diagnosis of a suppurating ovarian cyst was then made. Dr. Thomas and Dr. Emmet agreed in the diagnosis and advised immediate operation. On making the usual abdominal incision a tense cyst was reached, which was so vascular and hard that it had the appearance of the uterus. A small puncture with Peaslee's needle was made, and a jet of extremely fœtid pus escaped. None of the fluid was allowed to enter the abdominal cavity. The patient was turned on her side, and the cyst washed out thoroughly with carbolized water until the fluid returned clear. Then, on making an exploration, the cyst was found firmly adherent to the intestines, to the abdominal walls, and apparently to the uterus and other pelvic viscera. Very little investigation showed that it was impracticable to remove it. The abdominal wound was sewed up in the usual way, and the edges of the sac were stiched to the lower portion of the wound, so as to separate the cavity of the cyst entirely from the abdominal cavity. The operation lasted about an hour. There was but little hemorrhage. The patient rallied, but died early the following morning. The pulse before death was strong and rapid, and the temperature in the vagina rose to 107°.

The following report of the post-mortem examination had been furnished by Dr. W. H. Welch:

"Upon careful examination, it appears that the tumor was formed partly by a suppurating intra-ligamentous ovarian cystoma and partly by an intra-peritoneal abscess. The cystoma originates from the right ovary, which is therefore not to be discovered in the specimen. The left overy is present, buried in adhesion.

The inner surface of the posterior wall of the cyst is lined by cylindrical epithelium. In front, where the posterior surface of the uterus forms a part of the cyst-wall, there is no epithelium lining. The formation of the tumor may be explained as follows:

There grew primarily a cystoma from the right ovary, between the layers of the right broad ligament. This cystoma consists of one large main cyst and several secondary cysts, which can still be made out, partly with purulent contents. Suppuration occurred in the main cyst, which resulted in a partial destruction of its walls, and the formation of an peritoneal abscess, shut in by adhesions, but communicating with the main cyst. The adhesion encapsulating the intra-peritoneal abscess were so formed as to include the abdominal extremities of both Fallopian tubes,

the mouth of which opened into the abscess cavity, and hence indirectly into the cystoma.

The ovarian origin of the tumor is proved by its multilocular character, by the lining with cylindrical epithelium, and by the abscence of the right ovary. The partial formation of the cyst out of an intra-peritoneal encapsulated abscess is proved by the defect of the cystoma-wall in places and its replacement by peritoneum (posterior wall of uterus), and by the communication of both Fallopian tubes with the interior of the cyst, a communication difficult to explain upon any other supposition. Around the margins of the opening of the tubes into the cyst the fimbria can still be made out, so that dilated tubes form no part of the cyst."

Had it been possible to make an examination two or three weeks earlier, the patients life might probably have been prolonged by an operation.

Dr. J. E. Janvrin asked of what the second patient really died; whether of shock, or septicæmia which had existed for some time previous to the operation, as indicated by the persistant high temperature. He was rather of opinion that death took place from septicæmia, perhaps aided by the shock of the operation.

Dr. Hunter agreed in this opinion, and said he thought that if the patient had been let alone she would certainly have died, within two or three days, of septicæmia.

The President asked Dr. Hunter, with regard to his first case, what he thought would have been the effect upon the ultimate result of the case of leaving the small most firmly adherent portion of the cyst alluded to in the pelvic cavity.

Dr. Hunter replied that it would in all probability simply have remained adherent without undergoing decomposition. He did not think it called for drainage.

The President said he had had a case which in many respects presented almost the identical features observed in Dr. Hunter's first case. A small portion of the sac had to be left. The patient died on the fourth day after operation, of shock. The patient was older than Dr. Hunter's, being sixty-seven. This fact would probably render adhesive inflammaless likely to take place.

Dr. Janvrin had assisted at an ovariotomy about a month ago which terminated fatally. The patient was unmarried, 45 years of age. He saw her only the day before the operation. The physician and patient stated that the abdominal tumor had been present only six months. The tumor, however, was of immense proportions, and the patient exceedingly emaciated and weak.

Dr. Janvrin found evidence of more or less adhesions, and a large, firm mass in the right cul de-sac, which was thought to be a portion of the ovarian tumor above. It was firmly impacted, it being impossible to

dislodge or move it. The uterus was normal, and lay a little to the left and anteriorly.

The operation was done at St. Elizabeth's Hospital. At first an incision about two inches and a half in length was made, and the tumor found apparently to be uniformly adherent. In trying to separate the adhesions of the sac from the abdominal parietes, the cyst was very slightly torn, and a hole of the size of a pin's head made into its cavity. Dr. Janvrin then advised immediate tapping, which was done with a large trocar and canula. The contents were found to be colloid in character. The adhesions were so extended that the incision was necessarily extended almost up to the umbilicus. A great deal of difficulty was experienced in fully detaching the cyst from the parietes, principally on account of its soft and friable state. Finally it was thoroughly removed. Unavoidably some of the colloid material entered the peritoneal cavity. The entire cavity was thoroughly washed out with hot water slightly carbolized.

The tumor grew from the right ovary, and in extracting it a small rent was made in the broad ligament, from which a little hemorrhage took place. It was controlled by two ligatures. The cavity having been washed out as before stated, and being perfectly clean, the incision was closed. The operation consumed forty-five minutes.

During the operation the pulse disappeared, and the patient seemed to be dying. Ten or twelve hypodermic injections of brandy were given, the feet were elevated, and, as the legs were exceedingly œdematous, rubber blankets were sent for, with which they were wrapped, forcing the blood and serum into the body. The pulse almost immediately became perceptible, and the patient was put to bed. Reaction took place in about three hours. The drainage tube was left in. At the end of forty-eight hours it became evident that there was more or less serum in the abdominal cavity, as indicated by septic symptoms. The dressings were raised and a pint of serum was withdrawn.

The patient lived nine days and finally died, apparently of exhaustion, all symptoms of septic poisoning having disappeared about the fourth day. There was no further accumulation of serum.

The points of interest in the case were, the immense size of the tumor, its colloid character, the extreme feebleness and almost moribund condition of the patient during the operation, and the very favorable effect which applying elastic bandages to the extremities had by forcing the serum back into the general circulation, answering almost the same purpose as transfusion, which had been suggested during the operation.

The President asked Dr. Janvrin whether he thought, in view of the extensive adhesions, the operation should have been done. He made the inquiry because he himself had been placed in a similar position, and he would like to know the opinions of others.

Dr. Janvrin replied that he had seen many cases in which the adhe-

sions were as extensive, and yet the operation proved successful. In this case the patient was sinking very rapidly, and an operation afforded the only chance of recovery; it was for that reason he advised the doctor to remove the tumor as soon as possible.

The President remarked that where the adhesions were extensive and firm one could not tell beforehand how long a time the operation would require, how much handling would be necessary nor the possible amount of the hemorrhage, and the patient's chances were likely to be greatly diminished.

Dr Hunter mentioned a case in which the adhesions were very extensive in every direction and the patient recovered; and another of a similar nature, operated upon by Dr. Thomas, in which the adhesions extended to the diaphragm. The patient surprised everybody by making a good recovery.

The President remarked that in his experience with such cases the adhesions had been principally in the peivic cavity, but if they occurred higher up, or even on the diaphragm, they were less vascular, the operation was not so bloody, and occasioned less shock. Their extent, their vascularity, and the great length of time required for their separation within the pelvic cavity, and the attendant shock, made it questionable whether firm adhesions should be interfered with in this locality, especially if they are extensive.

Dr. Janvrin thought that in such a case the upper portion of the sac might be removed and the lower part, where it was most firmly adherent, be allowed to remain and drainage be established. He had done this in several cases.

Dr. P. F. Mundé had operated upon a patient, a little more than a year ago, in whom two tumors had been present — one high in the abdominal cavity, and the other firmly adherent to the entire pelvic cavity. No particular difficulty was experienced in removing the first tumor, except that the care with which it had to be stripped from its extensive adhesions required considerable time. The second tumor was about the size of a large cocoa nut, had apparently developed within the broad ligament, and had to be seared off with Paquelin's cautery from the posterior surface of the uterus down to the cul-de-sac. No pedicle was left. Some large arterial twigs in the seared surfaces were tied by deep sutures. The abdominal wound was closed and a drainage tube inserted. Dr. Mundé has since concluded that he closed the wound too soon, he should have waited until it was certain that every bleeding point was permanently secured, for the patient was in good condition, although the operation had lasted an hour and a half. She rallied well, with scarcely any shock. But a good deal of bloody serum escaped through the drainage tube, and after twenty-four hours her condition suddenly changed, the pulse went up to 150, and symptoms of collapse appeared. In spite of

all efforts at restoration she died the next morning. A post mortem was not allowed, but Dr. Mundé was of the impression that secondary hemorrhage had taken place, and that in similar cases it was better to prolong the operation and take the chances of shock, in order to make sure that all bleeding was permanently arrested.

The President said the question which had been in his mind was whether it was good practice to persist and break up all the adhesions where they were very extensive. It seemed from the discussion which had just taken place, that the method suggested by Dr. Janvrin was the proper one to pursue—namely, to remove the upper portion of the sac, if possible, and leave the portion firmly adherent within the pelvis and wash it out. He had observed the plan suggested by Dr. Mundé of persisting in removing all the sac down to the pelvis, and waiting until all oozing had ceased, in two cases, and he had lost both of the patients from secondary shock. Not a teaspoonful of serum had exuded in either case. He believed that both patients would have been saved had he been less anxious to get away all the stump.

Dr. Mundé had operated upon a patient a year and a half ago, in which case the sac was so broken down that it had to be removed piecemeal. The patient died of shock. He therefore thought the suggestion which had been made, to leave a portion of the firmly adherent sac and establish drainage, a good one, as subjecting the patient to a less degree of shock. He had observed this plan in one case, and the patient recovered.

Dr. F. P. Foster asked, with regard to Dr. Janvrin's second case, whether the immediate beneficial effect of the application of the rubber bandage was not due rather to forcing the blood than the serum from the extremities directly into the general circulation.

Dr. A Jacobi said that, while the serum could not be forced directly from the tissues in which it was found into the general circulation, it required but a short time for it to reach it indirectly, under pressure, for the lymph-ducts terminated in the subcutaneous tissue with open orifices; and, although it might have swelled the volume but slightly, it was known, from the results of transfusion of salt water, that a few ounces would have the effect of restoring the patient. The fact that the œdematous limbs were found to be reduced to their normal size after removal of the bandages showed that the serum must have gone to the circulation within the body. He thought, therefore, that some of the effects were due to the return of the serum as well as of the blood to the general circulation.

The Relation of Over-Nutrition after the Acute Fevers of Childhood to Bone Disease.

Dr. Jacobi said he would refer to a class of cases which were not very uncommon, and which were interesting because of their connection with

a number of physiological and pathological questions. A very simple and illustrative case was the following:

Some time ago a girl, eleven or twelve years of age, was present at his clinic for a swollen right humerus at its lower portion. The swelling was very slightly painful. There was a cicatrix about the middle of the arm, which had formed about six months before, after a sinus had lasted six years. A fistula opened an inch and a half above the elbow, on the anterior aspect, which led down to about the middle portion of the epiphysis apparently extending to the periosteum only. It was stated that the humerus began to swell when the child was four years old, and very soon after she had gone through a very severe attack of typhoid fever. The question arose, Had this swelling of the bone and periosteum anything to do with the typhoid fever? Dr. Jacobi thought it had, for reasons which he would state. While he might not be able to say anything that was not known to every person present, still the case was of interest in connection with a number of others which he had seen, and which were very interesting to him, particularly so because they opened up the question of quite a large number of cases of a similar description. There was one peculiar fact in the development and growth of children, which was known to physicians and also to the laity, that children not only appeared very tall after having gone through a severe illness, and particularly through a severe infectious disease, but they were really taller than before the sickness, and they grew very rapidly for a short time during and after such infectious disease. The growth or tallness was not only apparent, from the patient having become thin, but by measurement it could be shown that they actually were taller. The body became taller by an elongation of the bones: the bones grew by a rapid proliferation about the cartilage which separated the epiphysis from the shaft. If the bone grew, it must be in consequence of a nutritive process, which might become an irritative process, in that neighborhood. And the question arose whether high fevers, and infectious fevers particularly, had not the effect of producing such irritative disorder as proved under certain circumstances a cause of increased nutrition. Observation showed that after all cases of infectious disease in particular the epiphyses and the adjoining cartilages were very hyperæmic. In such localities, if a post-mortem examination were made, the blood would be found to ooze out, and where there was much blood there was at least an opportunity for over-nutrition. In rhachitical bones we knew that the intense growth and thickness were due to such over-nutrition. Thus it was that after most infectious fevers not only the epiphyses were apt to grow thicker, but also the diaphyses to grow longer, in consequence of the nutritive irritation of the cartilage (and periosteum). In cases in which the nutritive disorder, the hyperæmia, was not limited to its physiological condition, where it was a little more than physiological, it became pathological.

In most cases the over-nutrition and growth ceased after a while and returned to the normal state, but in others they were carried to such an extent as to become pathological and cause necrosis. Such over-nutrition of the epiphyses was one of the forms of so-called "growing-pain." Growing-pains occurred very frequently after a severe illness, and especially after a severe attack of an infectious fever, and were due to hyperæmia which might amount to inflammation. The other forms of "growing-pain" were either rheumatic or neuralgic in character.

The President understood Dr. Jacobi to mean that the necrosis occurred in these cases merely in consequence of over-nutrition, which became pathological, and in the absence of syphilis or inherited tendency. He would ask how the fact was to be explained that in rhachitical children this condition rarely occurred.

Dr. Jacobi replied that the character of the disease changed with the exciting cause. The syphilitic bone, for instance, differed from the scrofulous bone, and again from the rhachitical bone. The influence referred to as springing from infectious diseases and the rhachitic tendency were rarely combined in producing their effects upon the epiphyseal cartilages, for the infectious diseases usually occurred at an age when the rhachitic disease had already healed and the bones had become eburnated, preventing such elongation.

Stated Meeting, April 1, 1884.

The President, W. M. Polk, M.D., in the Chair.

Dr. W. R. Gillette presented a metallic catheter with a terminal opening, which he had found a valuable substitute for Davidson's rubber catheter in cases in which the vesical mucous membrane was caught in the fenestra of the rubber instrument, producing a temporary cystitis. Dr. Gillette also presented a specimen of the semen of the elephant, which was examined with the microscope.

Puerperal Eclampsia.

Dr. B. F. Dawson read the following history of a case: "Mrs. S., æt. 37, the mother of ten children, consulted me on the 14th of March, being then in the seventh month of pregnancy. She said that she had never 'felt life' during the existing pregnancy. At some previous labor she had suffered lacerations of the perineum and cervix, which were closed by myself about two years ago. The operations were followed by perfect relief from the symptoms, and by this pregnancy. She had not been feeling in good health for several months, and on the 10th of March she was suddenly seized with a severe chill, and had fever and obstinate vomiting, with very scanty urine. She called in a physician, who told her that she was suffering from acute Brights's disease, and gave a very unfavorable prognosis. When I first saw her she was constantly retching, was unable to retain anything on the stomach, and showed on the face, arms and the

neck, an erythematous blush, accompanied by sore throat and reddening of the tongue. There was no œdema of the face or ankles, but there was slight pitting on pressure along the crests of the tibiæ, with a varicose condition of the veins of the legs. There was no headache, stupor, or disturbance of vision. The bowels were constipated. I gave her five grains of calomel, to be followed by a saline cathartic, and requested urine for examination.

"Next day Dr. Hawley examined the urine and found nothing abnormal about it. The blush was not now so marked, but the throat and the tongue were in the same condition as before, and the nausea was intense. She had passed two ounces of urine during the previous 24 hours, and it contained about fifty per cent of albumen. I gave her a grain and a half of elaterium in divided doses.

"On the next day she had passed no urine, and the bowels had not yet moved. A catheter was introduced, and one drop of dark urine was brought out on the instrument. Infusion of digitalis was given by the rectum, in doses of half a fluid ounce, and drachm doses of fluid extract of Jaborandi were also administered.

"On the next day she had a small movement from the bowels, but no passage of urine. The catheter was again passed, but with a negative result. The pulse was 102, the temperature normal. There was no headache, œdema, or disturbance of vision, but the nausea and vomiting were constant, and the throat was swollen and sore. Three drops of croton oil were given, cups were applied to the loins, and the patient was kept in a hot air bath the entire night.

"The next morning she was feeling better, but had passed no urine, and her bowels had not moved, nor had any perspiration been induced by the hot air bath. About a drachm of dark urine was drawn with the catheter. She was now suffering from cramps in the arms and legs. The digitalis and jaborandi were continued, and she was quieted with hypodermic injections of morphine.

"On the succeeding morning she was suddenly delivered of a dead child, apparently of about seven months and a half. The was no hemorrhage, and the uterus was well contracted. She had passed a small amount of urine, felt much better, and there were no marked symptoms of uræmia.

"On the next day, one week from the time she was first seen, she was found stupid and slightly delirious. The rectal temperature was 105° F. There was no odor to the vaginal discharge. The vagina and rectum were washed out with a solution of bichloride of mercury, 1–2000, and about a drachm of urine was withdrawn with the catheter. At noon she had a slight tonic spasm, and quietly died. Unfortunately, an autopsy was not permitted."

The chief interest of the case, remarked Dr. Dawson, related to the absence of any of the marked symptoms of uræmia until near the end of

life, notwithstanding there had been almost complete suppression of urine during the nine days of the patient's sickness. She had remained perfectly rational, and said she felt well, with the exception of nausea, up to just before death. The case would have been less remarkable had there been any vicarious action on the part of the alimentary canal or the skin. There was little material vomited, and it was impossible to make the skin and rectum act.

The President said the case presented many features in common with one he related to the Society two years ago. He referred to the case in which by mistake he removed the only kidney. In that case, however, the stomach and intestines seemed to take up the work of the absent kidney, and on the third day the patient began to have about three very copious watery discharges from the rectum in the 24 hours, and vomited five or six times during the same period, the vomited matters containing a large amount of urea. Her mind remained perfectly clear up to twenty hours before death. She, died, as did Dr. Dawson's patient, in a slight convulsion, which was the only one she had during her eleven days of life after removal of the kidney.

Dr. Gillette had treated a child who had total suppression of urine for nine or ten days, after scarlatina. The child had a strongly uræmic odor, but nothing passed by the rectum. It died suddenly, having been clear in mind up to a moment before death. He had seen a case in consultation in which there had been complete suppression of urine for three weeks. At the autopsy pyonephrosis was found in both kidneys to a decided degree.

Rupture of Repaired Perineum.

Dr. H. F. Walker said that within three months past he had attended three multiparæ who had renewed rupture of the perineum. The first patient had had three children, and he had attended her in her first and third confinements. There was rupture of the perineum at the first confinement, which he repaired immediately. The second time she was delivered in Philadelphia. The physician who attended her closed a ruptured perineum, and it closed by first intention. The third child was born six weeks ago, and again there was rupture. In the two other cases two children had been borne, Dr. Walker having attended one of the women in both of her confinements, and the other only in her last. In both there had been rupture of the perineum at the first confinement, which was closed, and again rupture and closure at the second confinement, the operation on both occasions being successful.

Dr. J. B. Hunter had repaired a rupture through the sphincter ani in one case, and only slight laceration occurred at a subsequent labor, the sphincter remaining perfect. In three other instances he had avoided renewed lacerations at confinements by retarding the progress of the head, but the perineum was left weaker than before.

Dr. C. Mackenzie had seen one lady who had had rupture of the perineum at three successive confinements. The perineum was of that dark brown color, whlch has been said to indicate want of proper elasticity. The lesion seemed to occur each time in a different place. Repair took place promptly.

Dr. Garrigues had attended a blonde in three confinements. In the first two lacerations of the perineum occurred, which healed entirely after primary operation; in the third no rupture took place, though the child was large.

The President had recently attended a woman who had been confined for the first time twelve months before. On both occasions there was rupture of the perineum followed by successful repair. The second rupture was not exactly in the line of the first. It might not be inappropriate in this connection to say a word about a method which he had been accustomed to employ for the prevention of rupture of the perineum. It was not new, but he did not think it had been described in a perfectly plain manner, or in such a way as to attract the attention of the reader. The method consisted in prevention of extension of the head until the suboccipital region pressed well up against the arch of the pubes. We thus cause the shorter diameters of the head to be presented as it passes through the ostium vaginæ, thus relieving the pressure upon the perineum proportionately.

Dr. Gillette had practised this method for a long time with great benefit.

Dr. Hunter said that this method had been taught years ago by Dr. Thomas, but that he himself had found it difficult to put in practice. It was not an easy matter to take hold of the head at any point and regulate the direction of its diameters. He had found it most safe to retard the head by pressing on it or on the perineum.

The President thought this amounted to the same thing as the procedure of which he spoke.

Dr. Walker had found more lacerations from the passage of the shoulders than from that of the head.

The President corroborated this statement, but said that, according to his observation, when the perineum was lacerated by the passage of the shoulders there was previously a nick in the posterior vaginal wall, which the shoulders plowed through and enlarged. In reply to a question by Dr. Mackenzie he said that, according to the method to which he referred, pressure was made on the forehead, flexing the head, resisting extension, and thereby forcing the occiput out of the ostium vaginæ before permitting extension to occur.

Ovarian Cyst.

Dr. Hunter presented a specimen which had been removed that day from a patient æt. 34. Four years ago she noticed some enlargement of the abdomen, which has increased rapidly within the last year. Dr. Hun-

ter saw her for the first time a week ago, when he found the abdomen distended enormously by an ovarian tumor. On making an andominal section, he found the sac everywhere adherent in its upper part to the abdominal walls and to the intestines. The cyst was evacuated and then enucleated, but when the lower half was reached it was found to be non-adherent. A small portion had to be cut away and the pedicle tied. The main pedicle was also tied and dropped back. The entire cyst, sac and contents, weighed fifty-five pounds. It was multilocular, but the larger portion consisted of a single cyst. The fluid was dark straw-colored. A few points had to be tied where there was some oozing, but all bleeding had ceased when the abdominal wound was closed. No drainage tube was inserted. That evening the patient was doing well. The peculiarity of the case was that the upper portion of the tumor was firmly adherent, and the lower was free.

Note by Dr. Hunter, April 14.—The patient has since made a good recovery.

Puerperal Eclampsia.

Dr. Garrigues read the history of a case. The patent was twenty years old, unmarried, pregnant for the second time. After her first confinement, three years before, she had been insane for two years. Besides enormous œdema, there was hyperæsthesia of a great part of the skin. The urine contained forty per cent of albumen and many granular and hyaline casts. She had violent headache. There were two attacks of eclampsia. Eight ounces of blood were withdrawn, and a drachm of chloral hydrate was injected into the rectum. The external os formed a transverse slit, just admitting the tips of the two fingers. She was put under the influence of chloroform, the os was dilated with Barne's dilators without difficulty, and a living male child weighing eight pounds was extracted by turning. After delivery she had one more convulsion. The next day she was treated with the hot pack and derivatives over the kidneys and bowels, and made a good recovery.

He reported the case because several authorities deprecated artificial dilatation and turning, stating that it made the convulsions worse, but he thought this teaching a relic from the times preceding the discovery of anæsthetics.

Dr. W. M. Chamberlain said that in a case of his the eclamptic phenomena ceased as soon as dilatation of the cervix was accomplished, though delivery was not complete until seven hours later. Since then he had seen another case in consultation. He performed *accouchement forcé*, and in this instance also there were no convulsions after dilatation was considerably advanced until several hours after delivery was effected. This constituted his third case in which convulsions were recurring with considerable frequency up to the time when dilatation was secured, then suspended until after delivery, and came on again apparently after post

partum contraction of the uterus. Two of the patients recovered; the third one died.

Dr. Mackenzie inquired whether the patients became conscious when dilatation was effected.

Dr. Chamberlain replied that the convulsions ceased, but the coma remained.

Dr. Gillette did not know but the observation was an important one, namely, that puerperal convulsions ceased with dilatation of the cervix. He had seen a number of such cases, but on the other hand, on several occasions he had practiced *accouchement forcé* with the result of intensifying the convulsions. He distinctly remembered one case in which he found the patient comatose. Labor had just begun, and the os was dilated but very little. He effected rapid dilatation, but the convulsions continued. He could not see that delivery had any effect in moderating the convulsions. The patient lived forty-eight hours. There was complete suppression of urine. He did not think there was any general rule which would cover all cases. Each case must be a law unto itself. Undoubtedly some cases were aggravated by dilating the cervix. When dilatation was effected, no doubt some of the reflex irritation was removed, but he did not think that, from the observations thus far made, any rule could be given to regulate all cases. There was scarcely any condition, unless it was placenta prævia, in which there was so great a scope for the display of ingenuity as in eclampsia with commencing labor. It was perhaps the disposition of every one in such cases to hasten delivery, and yet he had done injury in some instances by interfering.—*N. Y. Med. Journal.*

OBSTETRICAL SOCIETY OF LONDON.

Meeting of Wednesday, July 2, 1884.

H. Gervis, M.D., F.R.C.P., President, in the Chair.

Spondolylolisthesis.

A report of the committee on Dr. Neugebauer's specimens of spondylolisthesis was read. They considered that the specimens bore out Dr. Neugebauer's views, which were essentially that the the anterior half of the vertebra (typically the fifth lumbar) glided away from the posterior half owing to congenital deficiency or fracture. Such predisposing causes might not result in spondylolisthesis without the operation of overweighing.

Dr. Neugebauer stated that Professor Lambe had withdrawn his theory of hydrorachis as a cause of spondylolisthesis.

Mr. Noble Smith's appendix to the report was read. He described specimens showing caries as probably a consequence of displacement.

Fibro-cystic Myoma of the Uterus and Septicæmia.

Dr. H. A. Lediard (Carlisle) described this case. The symptoms

dated twelve months back, and included pain, bleeding, vomiting, and anæmia. The tumor felt cystic in parts, and a bruit was heard over it. It reached two and a half inches above the navel. Afterward, diarrhœa set in and the temperature rose. After an examination by the sound, severe symptoms set in, including the usual signs of peritonitis, and death occurred on the ninth day. The tumor grew chiefly from the posterior wall, and was partly cystic, as were both ovaries. The kidneys contained miliary abscesses, the spleen was enlarged and soft, containing several recent infarcts. The liver was fatty, the lungs œdematous and congested. No trace of peritonitis was found. The uterine mucous membrane was nowhere abraded.

The President said Dr. Lediard was not singular in his experience. A small abrasion was sometimes fatal.

A Condition Noticed in the Navel-cord of a Young Infant.

Dr. John Williams described this case. The cord at birth appeared natural. On the second day the distal two inches had dried, while the proximate inch was succulent as at birth. In the next few days it broke down and became stinking. There was some bleeding on the fifth day. The cord did not fall off till the ninth day, when it left a somewhat conical stump, with an ash-gray surface and a small red central depression. A thin sheath sloughed off the stump. Sir J. Paget, who saw the child, advised its removal (if it remained) by ligature, as in the case of common wart of the umbilicus. It disappeared altogether on the fourteenth day. The early appearance of the wart was remarkable, it had not been observed before the eighth day.

Remarks were made by the President, and by Drs. Edis, Williams and Herman.

Involution of the Puerperal Uterus in the Absence of the Ovaries.

This case was also brought forward by Dr. John Williams. The patient had had her left ovary romoved in 1879, and her right was removed during labor in 1883, for cystic disease. Recovery was uninterrupted. The involution was decidedly delayed, and on the twenty-eighth day it was still above the brim. The sound passed four inches. Seven weeks after delivery the uterus was of the usual size in the fourth week. Seven months after delivery it was smaller than the virgin organ, sharply anteflexed, and the cavity was only two inches long. In this case the immediate effect of removal of the ovaries was retardation of involution, but the changes in the peritoneum caused by the ovariotomy must be remembered. The ultimate result was exaggeration of uterine involution, like senile atrophy.

The President endorsed Dr. William's view of the case.

Dr. Carter remarked on the rarity of superinvolution. There existed,

without a doubt, a condition of atrophy of the ovaries in these cases, and their removal produced the effect he should have expected.

FŒTAL EXTENSIONS AND RETROFLEXIONS IN PREGNANCY.

Drs. Matthews, Duncan and Hurry had collected all examples of extension of the limbs and body of the fœtus occurring during pregnancy, and had tried to throw light on their causation. These extensions might be of a leg or both legs or of the whole body. They might be caused by malformation, goitre, amniotic bands, exomphalos, shortness of cord, and morbid conditions of the mother.

The President remarked on the special value of the paper as throwing light on some of the causes of face presentations.

Dr. Champneys said that the only variety he had himself observed was the "siège decompléte" (Lefour). In this, when primary, the legs after birth at once resumed the fœtal attitude and flew up over the shoulders in the most striking manner.—*British Med. Jour.*

EDINBURGH OBSTETRICAL SOCIETY.

Meeting of July 9th, 1884.

DR. SKENE KEITH read a paper, giving an account of

FIVE CASES OF TRACHELORRHAPHY.

The speaker began by remarking that operations for restoring a torn cervix uteri are not yet generally recognized in the southern parts of this country, and some of the so-called Emmet's operations which he had seen would greatly astonish the great American apostle of clipping and stitching. The few cases he had to relate brought out forcibly the necessity for following up the after history of the patients. He had heard of several cases who were no better some months after the operation, and who were supposed by the operator to have been cured, for example, he knew of a lady who a few months after the operation was no better but rather worse, as she was suffering from constant bloody discharge in addition to her other troubles. This discharge was accounted for by the presence of a wire suture in one lip, and the want of improvement by complete failure of union, yet it may have been put down as a cure as the patient did not see the operator after the first few weeks.

Case I. Mrs. G. had suffered for fifteen years from pain in both groins and from a constant aching in the region of the sacrum since the birth of her only child The labor had been a natural one. After years of treatment she saw Prof. Skene, of Brooklyn, and was advised by him to have the cervix uteri repaired. The cervix was torn on both sides of the os, almost to the vagina, and there was some, though not very marked, rolling out of the lips. The uterus was of normal size, and was not displaced. Dr. Skene allowed me to perform the operation and assisted me on December 21st, 1881. Sims' speculum was used to bring the cervix

into view in this and the other operations. After passing a sound I fixed on each lip of the cervix a double tenaculum at the spot where the centre of the external os was to be. With Skene's hawk-bill and Emmet's scissors I pared first the left and then the right side of the cervix, leaving the central part untouched for the cervical canal. There was little hemorrhage. Three sutures were required on each side and after they had been tied I passed a sound to be quite sure that the cervical canal was patent. This precaution is not altogether unnecessary, for I have seen a cervix on which a so-called Emmet's operation has been performed, but where the menstrual discharges after the operation escaped through a small opening at the junction of the cervix with the vagina. There was retention of urine for twenty-four hours, and this was the only trouble the patient had after the operation. The sutures were removed on the seventh day, she sat up on the tenth, and at the end of a fortnight she came to Dr. Skene's office. The union was not so good as it might have been. However, the backache was quite gone, and the pains in the loins was not so bad. I have not heard of her since.

Case II. A lady, æt, 26, was seen by my father in April, 1882. Two years before she had been delivered of a seventh month child with forceps after having been in labor with convulsions for 48 hours. Since then she has suffered with constant backache and leucorrhœa. On examination with the speculum it was seen that the left side of the cervix was torn, and that the tear extended into the mucous membrane of the vagina. The right side was intact. The cavity of the uterus was increased to four inches, and there was no displacement. In May, 1882, I operated in the same way as the previous case, except that one side only had to be repaired, and that two of the eight silk sutures which were required were entirely in the vaginal wall. After the stitches had been tied the tear measured two and a half inches. The patient had no trouble after the operation. On the ninth day two of the sutures about the centre of the line were found to have cut their way out. Injections of hot water were given night and morning, and the other silk sutures were left in for two days more. Three weeks after the operation the cervix looked almost as though there had never been anything the matter with it. The backache and leucorrhœa had entirely disappeared. This lady kept perfectly well for seventeen months. She was then delivered of a child at term and since then has had a slight return of the old troubles. A short time ago my father found that there was a slight tear anterior to the former one.

Case III. Mrs. H., æt. 31, suffered from backache, pain in the groin, and leucorrhœa for ten months, since an abortion at about the forth month. She had been a patient of Mr. Butler Smythe at the Grosvenor Hospital for Women and Children, Westminster; for a number of weeks, and had improved to a certain point, but could not be made to advance further by any of the usual treatment for such cases. When

Mr. Smythe asked me to look at the case the cervix was torn on both sides, principally on the left, and the everted edges were covered by exuberant granulations which bled easily. The uterus cavity measured two and a half inches, and the sound passed backwards with a slight curve.

Mr. Smythe asked me to operate and I did so in April, 1883. There was no special difficulty in the operation. I was able to raw the right side with one snip of the hawk bill scissors, as the tear on that side was small and required but one suture; three were put in on the left. Patient suffered from no pain or disturbance after the operation. When she left the hospital the cervix looked beautiful. The leucorrhœa was quite stopped, the backache somewhat better, and the pain in the groin as bad as ever. Now she is perfectly well.

Case IV. Mrs. M., æt. 36, has not felt well for years, and since the birth of her last child, seventeen months before I saw her, had suffered from constant backache and leucorrhœa, and frequently from facial neuralgia. On examination, the perineum was found to be partially torn, and what was left of it was lax and soft. There was a considerable rectocele, and this caused great straining at stool. The cervix was low down, large, hard, torn, and the lips were much everted, the posterior being fully twice as thick as the anterior. The uterus was slightly retroverted and the cavity measured three inches. In May, 1883, I pared and brought together the everted lips. There was some difficulty in doing this on account of the difference in the thickness. Six sutures in all were put in. At the same sitting I cured the rectocele by repairing the perinæum. Five weeks after the operation the cervix could not have looked better. The patient went to the seaside, and although she came back looking very anæmic and not fully well, there had been no leucorrhœa nor face-ache, and the back did not pain her as much as formerly. In December the back-ache began to get worse, and I found that my patient had become pregnant, and about one-third of the cicatrix in the cervix had given way. She aborted, and I again pared and brought together the everted edges, this time with wire. A week ago the patient wrote to say that she was feeling much better.

Case V. Mrs. L., æt. 21, was well until after the birth of her second child, four years ago. After getting up she suffered from bearing-down pains, which were relieved by wearing a pessary. Six months ago she was delivered of a boy baby, with forceps, and remained in bed for five weeks. Since then she has suffered from constant bach-ache and pain in the left groin, and she has a profuse yellow discharge. When I saw the patient, last November, the uterus lay low in the pelvis. The cervix was deeply torn on both sides, and there was a great deal of rolling out of the lips. The vagina contained a large amount of glairy mucus. After two months' treatment as an out-patient, during which time the cervix decreased in size the leucorrhœa got less. I thought that the tear would

not improve further as it was an irregular one and I therefore operated. On the ninth day the patient felt perfectly well and had no pain. She went home at the end of three weeks, nursed her two children with measels, and her husband, who was also ill, and felt perfectly well for three months. Since then she had profuse discharge with pain in the stomach, and I have heard from Mr. Malcolm, who has been at the Samaritan Free Hospital, that there is considerable suppuration along the lines of the cicatrix on the right side, though the deeper parts appear to be quite firm.

Remarks. The operation of Emmet, when properly performed, is certainly of benefit in suitable cases, but I do not believe that it ought to be a very common one, for there are few women who have had a child without having their cervix uteri more or less injured, and most of these injuries do little harm. In my notes of a years out-patient practice in the Samaritan Free Hospital, I found that I have marked down that there was a well-marked cervical tear in forty-two cases, yet in only five did I recommend operation and two of these were on account of induration due to excessive application of caustics. Careful application of a mixture of carbolic acid and tincture of iodine with the hot douche and support of the uterus when necessary was found quite sufficient to heal up the other cases. Trachelorrhaphy is not a very easy operation, at least, in most of the necessary cases, for in those the tissues of the cervix are much harder than natural. Where it is safe to draw the cervix entirely outside the vulva there would be little difficulty, but as this cannot be done I have found that the most easy position is to have the cervix at its natural place at the upper part of the vagina, provided always that the patient is placed well in Sims' position and that the speculum is well held. There is far more room here than at any other part of the vagina. In forty cases I have but once seen hemorrhage of any intensity. In the others it either stopped before the stitches were introduced or after they had been brought together. I don't think that it is of importance what kind of sutures are used. In my next case I shall probably use wire for the crown ones and silk, prepared according to Dr. Skene's method, for the uterus. The needles are of much greater importance, Dr. Emmet used round ones, but I don't find there is any objection to lancet-pointed needles, and certainly they go in much more easily. It is certainly a great comfort to fix into each lip a tenaculum of some sort, then one gets greater command over the cervix, and can keep it steadier than if a loop of thread or any other means be used

DISCUSSION.

Dr. Wilson congratulated Dr. Keith on his paper, and remarked that, considering the number of cases operated on the other side of the Atlantic, the midwifery must be somewhat rougher there than on this side.

Dr. Berry Hyrt did not understand the pathology of the cases operated

on, and believed that some forms of inflammatory action went on in the parts. He would like to know the conditions Dr. Keith had met with in split cervix. He had seen pelvic cellulitis and other affections following, the operation, and had heard many patients complain that they had been benefited by the operation.

Dr. Milne Chapman had performed the operation with unfavorable results in four cases. He held that the tendency of Nature to heal the rupture in the cervix caused congestion of the part; this leads to a proliferation of epithelium, which prevented healing. In the one successful case a notable result was the diminution in sub-involuted uterus.

Dr. Barbour had seen eight or ten cases; the benefit derived was only in about one-half of the cases. He, however, held that Emmit's operation was based on sound pathology.

Dr. Arnot (Bombay) thanked Dr. Keith for his paper, and was glad to hear a new operation discussed. He held that the proof of the success of the operation depended not so much upon a good cicatrix, but on the results of a year's experience. How much of the temporary success of the operation depends on the local hemorrhage, relieving congestion, the rest in bed, etc., which accompanied the operation?

Dr. P. A. Young had had no experience of the operation. The operation, he held, received the almost universal assent of the profession. He related a case of chronic split cervix, which was cured by Emmet's operation.

Dr. Brewis recorded five cases treated by Dr. Angus Macdonald, four of which were successful. In the unsuccessful case there was shortening of the broad ligament, which prevents the cervix being drawn down, as was the custom with Dr. Macdonald. There was also some ovaritis. The case at first did well, but on the removal of the sutures it was found that the rent had not been improved. In two cases he had seen severe hemorrhage; he had used a styptic composed of iron, alum, and glycerine, but found the vagina cleared, due to the styptic used. This should only be used in hemorrhage due to malignant disease. All cases should be watched by the nurse, as severe hemorrhage may come on in any case.

Dr. Webster mentioned a case in his practice where a severe split cervix had been cured by hot water.

Dr. Keith replied that he once held that the operation should be done far more frequently, but he had since modified that opinion. As to the pathology, he had formulated no theory. He had operated more because he thought the cervix was at fault. He thought that the operation as a rule should not be done in cases of pelvic cellulitis. Dr. Emmet said that the pelvic cellulitus should be first carefully treated, and then the operation might be carefully done.

Dr. Ballantyne then read a paper on

SOME CASES OF SPECIAL CLINICAL AND PATHOLOGICAL INTEREST.

in the Buchanan Ward under Professor Simpson, during the winter session of 1883–84, with remarks on various antiseptics employed.

Before proceeding to the consideration of some of the cases treated in the wards, Dr. Ballantyne referred to the nature of the antiseptics used. Owing to the advocacy of foreign operators, solutions of corrosive sublimate were used in place of those containing corbolic acid. The solutions used vary in strength from 1 in 4,000 to 1 in 2,000, these being very suitable for practical purposes. To prevent errors in their use they were colored with methyl orange, as the clear solution of the sublimate might be mistaken for pure water. One objection to the use of the antiseptic was its action on the instruments used, even the sponges became stiff and of a dark color. There is also some danger to the operators when the solution is allowed to evaporate on their hands. So great (said Dr. Ballantyne) was the effect that the sublimate had on the instruments and sponges that in the last few abdominal cases we have returned to carbolic acid again. But in the cases of pelvic abscess the sublimate seems to be specially useful: of these three cases were admitted, the following cases being particularly interesting:—

A CASE OF PELVIC ABSCESS.

M. N., married, æt. 25, admitted Feb. 1, 1884, complaining of pain in the left groin and side, and inability to straighten the left thigh. She had been confined of her first child six weeks before, the labor had been tedious, delivery being procured by forceps. There was a typical history of pelvic cellulitis which had not yielded to treatment, blistering, and internal remedies. On admission there was distinct fulness in the left iliac region, extending along Poupart's ligament, with distinct fluctuation at one point. On vaginal and bimanual examination, a large hard mass was found occupying the anterior, posterior, and left lateral part of the pelvis. The diagnosis being clear, the patient was ordered quinine, and poultice applied to the left iliac region. On February, 16, the abscess pointed about 1½ inches above Poupart's ligament. Professor Simpson aspirated at this point, and drew off about 20 oz. of pus. The temperature was 103·6°. On the following day an incision was made, and the abscess more fully evacuated and washed out with a solution of corrosive sublimate (1 to 2,000), and a drainage tube inserted, and a dressing of iodoform gauze and salicylic wool applied. The cavity was washed out twice daily with the sublimate, and dressed as just stated. The case progressed favorably except in one instance, when there was no sublimate solution, and carbolic acid (1 in 60) was used, with the result that the temperature rose to 100°, and a considerable increase in the amount of pus discharged took place. These symptoms disappeared on the return to the corrosive sublimate. Iodoform gauze was the outward dressings of all the cases,

and is the favorite in the wards. Cotton-wool steeped in a solution of corrosive sublimate was also used.

A CASE OF BATTEY'S OPERATION.

M. B., married, æt. 40, admitted October, 4, 1884, complaining of down-bearing pain, with extensive red discharges from the vagina, and whites between the monthly periods. She gave the following history of her present attack, which began two years ago:—Three days after her last confinement, which took place in October, 1881 she began to suffer with a gnawing pain in the left side of the pelvis, which gradually became worse, and on the tenth day she was in a state of high fever. The severity of the symptoms then abated somewhat, and the patient got up in a fortnight, the pain in the left side still continuing, and being now accompanied with pain in the back and continual down-bearing. The lochial discharge lasted three weeks. Three months after this her upper and lower extremities began to swell, and a copious white discharge came from the vagina. The swelling of the limbs began to disappear in six months, but synchronous with its disappearance the abdomen became distended. She now became a confirmed invalid, and consulted several medical men, one of whom diagnosed retroflexion of the uterus, and inserted an instrument, which, from the patient's description, seems to have been a Hodge's pessary. This instrument relieved the pain so long as it remained in position, but this it only did for three days or so at a time. Other instruments were then used, but without producing any satisfactory results. She then saw another doctor, who said she had inflammation of the ovaries, in addition to retroflexion of the uterus, and ordered her poultices to the abdomen and hot water-vaginal injections. This treatment soothed the pain and somewhat checked the discharge, which had become a yellowish-red in color. Having thus reduced the inflammation considerably, her medical attendent then introduced an instrument, but this, like the former ones, did not remain long in position. The pain in the back and side had been present during her whole illness, except at her menstrual periods. Her health previous to marriage had been good.

Her sexual history was remarkable for the fact that the menstrual discharge began at the early age of 12, and was of the regular twenty-eight day type, lasting four or six days, and was not in large amount. On making the bimanual examination, combined by the use of the sound, the uterus was found to measure 3½ inches: it was sharply retroflexed, and lying behind it was a rounded, very painful body, about the size of a walnut, which could only with great care be differentiated from the uterine fundus. In the left fornix another small, somewhat rounded, and very tender body was palpated. The diagnosis of retroflextion, of an enlarged uterus with ovarian congestion and prolapse, was therefore made. On

admission she was treated with the hot water vaginal douche night and morning, and a glycerine plug inserted into the vagina every second day, while ergot was given internally. These means failed, as did packing the vagina lightly with cotton-wool alone. Professor Simpson, therefore, determined to open the abdominal cavity.

On November, 27, the patient was anæsthetised, and an incision made in the middle line, as in ovariotomy. The peritoneum was divided with great care. A hand was then passed into the abdomen, and the position of the uterus lying retroflexed with the right ovary prolapsed behind it, was made out. The right ovary and the right broad ligament were drawn up into the wound, and the broad ligament was transfixed at the base of the ovary by means of a needle threaded with a double silk ligature. The ligature was then divided, and tied in two portions, thus thoroughly constricting the vascular connections of the ovary. The right ovary was then dropped back into the peritoneal cavity. It was seen to be enlarged and vascular, but not cystic. The same method of treatment was adopted with left ovary. The peritoneum was then cleansed, and the abdominal incision closed. The patient made a good recovery, she had in three weeks completely recovered from the effects of the operation, no pelvic pain or uneasiness followed, and, at what should have been her next monthly period, no red discharge appeared, but a copious yellow one which was treated by means of carbolized vaginal douche. The patient left the Infirmary in January stating that she had not felt so well for years. During the months of April and May, while staying at her own home, she seems to have had an attack of pelvic peritonitis, for, on returning to Edinburg in June, it was found that, although the uterus was still normal in position, there was considerable matting together of the tissues around it. This was treated by means of hot douches and glycerine plugs, and the patient again left for home in July, feeling very much better.

The next case was one of hæmato-salpinx or distended Fallopian tube in which Lawson Tait's operation was formed.

B. M., married, æt. 40, admitted April 1884, complaining of pain in the left groin and in the back, increased at the monthly period, and of a profuse menstrual discharge with "whites." She had been ill for two years, the attack commencing at that time with severe pain in the left side of the pelvis, accompanied with nausea and vomiting. She began to have an increased discharge at the monthly periods, with a thick and viscid yellowish white leucorrhœal discharge between times. The pain menorrhagia and intermenstrual discharge, had continued in a varying degree up to the present date. Various internal remedies had been tried before she was admitted to the ward. She, however, had not enjoyed good health since the birth of her first child, fourteen years ago. Her third confinement, ten years ago, was characterized by the appearance,

after the completion, of the pain in the left side with a slight amount of menorrhagia and leucorrhœa. After her fifth and last labor, seven years ago, all these symptoms increased, and have kept on getting worse up to the commencement of the present illness. The pain in the side and back is markedly increased at the menstrual periods, and persists throughout the duration of the flow. All her labors were normal. A physical examination revealed the following facts :—

On the palpation of the abdomen there was pain on pressure, and a feeling of insistence in both iliac regions, but especially in the right The percussion note was dull in the right iliac and hypogastric regions. On vaginal bi-manual examination the vagina and cervix were found to be nulliparous in character, a tense rounded mass was found occupying the anterior and right lateral fornices, while a smaller hard body was found lying in the posterior fornix, the latter body moved distinctly with the cervix uteri. A tense obscurely fluctuating mass, about the size of a five months' pregnation, was found lying to the front and to the right side of the uterus which was pushed backwards by it. This large body moves with the cervix, but the movement seems to be directly communicating. The sound passed up to 2½ inches in a backward direction, and, with the sound in the uterine cavity, the tumor could be moved about in all directions without affecting the position of the sound. The diagnosis of dilated and twisted Fallopian tube either hydro- or hæmato-salpinx was accordingly made, and Lawson Tait's operation determined upon. On June 4, the patient being anæsthetised the abdomen was opened. On dividing the peritoneum the wall of the cyst was seen, and the needle of the aspirator was inserted into the cyst. Only about ½oz. of yellowish serous fluid passed through, the tube being immediately blocked up by the contents of the cyst. The cyst was then opened, the margins of the wound being caught by means of Keith's forceps. Care was taken to prevent the contents of the cyst from entering the abdominal cavity. Several adhesions which bound the tube to the omentum and to the anterior abdominal wall were ligatured and divided. The cyst was then drawn out through the abdominal incision, the pedicle was transfixed by means of a double silk ligature, and firmly tied on both sides, it was dropped back into the peritoneal cavity. The incision was closed by means of deep silk and superficial horse hair sutures and the wound dressed in the usual way. The patient made good recovery, and is about to leave the hospital. Among the other cases treated was one of myoma removed by laparotomy, another case of carcinomatous cervix removed by the ecraseur.

Dr. Wilson congratulated Dr. Ballantyne on his paper, which was most valuable as it introduced to the notice of the Society certain antiseptics used in the wards.

Dr. S. Keith was glad to hear the paper, especially with regard to antiseptics and the use of different wools. He would like to know if the

case of epithelioma followed an abortion, as Dr. Emmet held strongly to the view that epithelioma followed as a rule a split cervix.

Dr. P. A. Young held that the best deodorizer of iodoform was koumarin, the active principle of the tonquin bean. He also referred to a case where menstruation continued after the ovaries had been removed, a portion of one, however, being left.

Dr. Ballantyne replied. In the cases, referred to by Dr. Keith, of epithelioma there was no history of abortion.—*The Medical Press and Circular.*

BRITISH MEDICAL ASSOCIATION.

SECTION OF OBSTETRIC MEDICINE.

Sir Lawson Tait, F. R. C. S., Eng. and Edin., read the following paper on:

The Pathology and Treatment of Extra-uterine Pregnancy.

So long as we believed that the process of ovulation occured at intervals of great regularity, thirteen or fourteen times a year; that its products were carefully guarded by the embracement of the ovary by the Fallopian tube, this embracement being secured by some mysterious and intelligent action of the infundibulum; that the tube guarded each and every ovum to the uterus; and that there they either became impregnated or were thrown out, our views of ovarian pathology were very inconsistent with the facts observed in disease. Nowhere, I think, was this inconsistency more evident than in our notions concerning extra-uterine pregnancy.

I have already published a number of observations which have satisfied me that menstruation and ovulation are, at least so far as time is concerned, perfectly independent functions. Ovulation is going on continuously, and the great majority of its products drop into the peritoneal cavity and perish there. This goes on from infancy to old age. During the period of life when there is no reproductive activity, the ovary is grasped by the infundibulum at the menstrual period, occasionally and apparently at random; and when it happens that the infundibulum is applied to the ovary at the right place and at the right time, and the ovum, having safely reached the uterus, is there impregnated, a fœtus in utero is the result. At present I have to deal with that part of the process only in which the ovum is seized by the infundibulum and passes down into the uterus, for it is in this stage that the arrest of the impregnated ovum may occur, and result in the formation of an extra-uterine pregnancy.

Concerning the much debated ovarian pregnancy I need not repeat here what I have said elsewhere at length (*Diseases of the Ovary*, fourth edition, p. 226), save to record my entire disbelief in its occurrence. Nor need I repeat the arguments adduced in the same work to support my belief that, under normal circumstances it is in the uterus and not in the Fallopian tube that actual impregnation takes place.

In 1842 Ritchie wrote the following sentences, and nothing as yet appears which controverts in any way the views stated in them:

"The positive evidence of the uterus being, at least in man, the normal seat of conception, and its occurrence in the tubes or ovaries exceptional only, seems conclusive, the cases of the latter which take place depending probably on the escape of spermatozoa along the tubes during menstruation, or on some accidental and rare arrangement of the mucus in the uterine ends of these, by which it becomes a conducting medium for the passage of the seminal corpuscles toward the ovaria." (*Ovarian Physiology and Pathology*, p. 138.)

From experiments on animals which have practically no Fallopian tubes, whose uteri extend really to the infundibulum, and, therefore, throughout whose uterine tract spermatozoa have been found after coition, it has been assumed that spermatozoa habitually permeate the Fallopian tube in women. Of this assumption no proof whatever has been established. The presence of ciliated epithelium in the human tubes seems to me to be an arrangement for preventing the passage of spermatozoa into them, and, therefore, for preventing the occurrence of tubal pregnancies.

One fact made certain by research is that as soon as actual impregnation takes place in mammals, the altered ovule adheres to the mucous surface with which it is in contact. The very condition, suspected by Ritchie, which enables impregnation to take place, is unquestionably desquamative salpingitis. If we imagine a Fallopian tube to be wholly or in part deprived of its vibratile cilia, it is not difficult to see how an ovum may become impregnated and rest there, becoming attached and developing into a tubal pregnancy.

From my own experience of tubal diseases I am satisfied that salpingitis is a very common disease, and that it generally results in occlusion of the tube. It is not difficult to believe that the cases in which the attack is limited to the mere destruction of the epithelium must be very rare, and, therefore, we have in this the prime factor in the rarity of tubal pregnancies. The great majority of tubal pregnancies occur either in women who have either never had normal pregnancies, or who have not been pregnant for a number of years, so that it is certain that in them the reproductive machinery is out of gear.

For clinical purposes — and I think it will be found that our pathological conclusions may be founded on the same fact — extra-uterine pregnancy has two phases. It attracts attention by the very large number of cases of death from rupture of the tube, resulting in fœtal hemorrhage, and again, by a few cases in which the ovum outside the uterus goes on to or approaches the full term of gestation.

I think it fair to assume that the second class constitutes the survivals of the former. It is certain that Fallopian pregnancy with fatal tubal rupture is by no means uncommon. The records of our societies contain

large numbers of cases, and in conversation with medical friends of large experience I find they are well known, and I have seen somewhere about twenty-five cases within the last twenty years. The second class are far less common.

It is easy, of course, to suppose that some of the cases of tubal pregnancy where rupture occurs before the thirteenth week are not fatal, and I shall consider later on the kind of rupture which is not likely to cause death, but even of that form of rupture—rupture with extrusion and hemorrhage into the peritoneum — which is likely to cause fatal hemorrhage. Some of the cases may not end fatally, the ovum may be killed and absorbed, or it may go on to maturity and form a true abdominal pregnancy. Of all the cases whose records I have examined, I am of the opinion that only one shows evidence of this ending, that case recorded by Mr. Jessop of Leeds.

Passing by for a moment the belief that I have expressed, that these full time extra-uterine pregnancies are the survivals of early tube rupture, let me point out that in none of my own dissections or operations on the earlier cases was there the slightest doubt, nor could there be, that the site of pregnancy was the Fallopian tube. Nor, in any record of these cases, is there any doubt about it. In fact, no early extra-uterine pregnancy having any other site than the Fallopian tube has ever been seen, or if so, it has escaped my research. The assumption, therefore, that an early extra-uterine pregnancy of the full time has any other source, demands proof, which, so far as I can see, is entirely absent.

When an ovum is impregnated in the tube it acts precisely as it does in the uterus, it becomes attached to the mucous surface, and a section of its area develops the vilious growth characteristic of the placenta. In the uterus the attachment of the placental site seems very much a matter of chance, and so no doubt it is in the tube. About one fourth of the circumference corresponds to the relations of the two layers of the broad ligament, layers which are at this point very easily separated. If the rotation of the full-time extra-uterine gestations were found to stand to the early tubal rupture as one is to three, I believe the views I am about to advance would be proved to demonstration. In my own experience it is curious that they do so very nearly, but it is too small an experience from which to argue.

It seems to me that when a pregnancy has developed in the tube so far as the twelfth or thirteenth week, the tube can be distended no more, and its walls give way. This rupture, however, may occur as early as the eighth week, though it usually occurs at the tenth or twelfth. Let us suppose that the site of attachment of the placenta corresponds to some part of the three-fourths of the circumference of the tube, outside the relations of the layers of the broad ligament, it is not difficult to see that the rupture will inevitably be within this area, for the placental sinuses will have weak-

ened the walls of the tube, and when it bursts they will pour out into the peritoneal cavity the heart's blood of the patient. When the rupture and bleeding occur there is no provision by thick, contractile walls for the arrest of the hemorrhage, first, by the separation and extrusion of the placenta, and then by the occlusion of the vessels. Bleeding goes on continuously, and we see the patients die, and on post mortem examination we find the fœtus lying in the abdominal cavity, blood clot everywhere, and the placenta lying still attached to the inside of the tube. Do these cases ever recover? There is nothing I know of but Mr. Jessop's case to answer in the affirmative.

Suppose, on the other hand, that the site of placental attachment shall be on that fourth of the tubal circumference which corresponds to the relations of the broad ligament, the rupture will take place into the cavity of the broad ligament, and we have at once a natural hemostatic agency at work. The ovum may perish with the rupture, and then we have only a small hæmatocele, ending in speedy absorption, or the ovum may go on to maturity, and then we have the pregnancy in the broad ligament, which comes to us for surgical treatment in some part of its later history. The fœtus often dies about the fifth month, and the cyst suppurates. If it be in the left broad ligament it bursts and discharges into the rectum, as I have seen in five cases; if it be on the right side it may burst into the cæcum, as I have seen in one case, or over the crest of the ilium, as I have seen in two cases. When it goes on to maturity, the child generally dies after a spurious labor, and before the condition is recognized, unless a correct diagnosis be made and abdominal section performed before the death of the child. This was done in a case in the care of Dr. Lattey of Southam, and myself, and a living (still living) child removed. The mother, however, did not survive the operation.

In all the cases that I have had of extra-uterine pregnancy going to full term, there was a clear and indisputable history of tubal rupture about the tenth week; and the relations of parts observed at the time of operation established the fact that the pregnancy was in the broad ligament. My own experience is conclusive that these extra-uterine pregnancies are all tubal in origin, and in the cases which had arrived at maturity the placenta was always at the bottom of the cavity, where we might expect it to be according to my theory of tubal rupture. All descriptions of cases of this kind that I have read yield evidence in harmony with my view, and in none is there a statement of a fact not in harmony with it. A point which would upset it is, of course the existence of both tubes uninjured, and not implicated. In my fatal case the remains of the injured tube were found on the front and upper part of the cyst.

On the surgery of extra-uterine pregnancy I have already published so much within the last few years, that I may greatly condense what I have to say here.

In the series of cases recently published in the *British Medical Journal* I have shown that a proceeding which I discussed so long ago as 1874, although I did not at that time pronounce in its favor, may be carried to a successful issue in 80 per cent of the cases of tubal rupture. Since 1878 a new era in abdominal surgery has been opened up.

When the diagnosis of extra-uterine pregnancy is made at or near the full time, and during the life of the child, operation is demanded. In Mr. Jessop's case, both mother and child were saved, and in mine the child survived. When the child is dead, operation is still demanded, and has been, in my hands, uniformly successful; the cardinal features of the operation being (1) to stitch the opening in the sac carefully to the wound in the abdomen, so as to close the peritoneal cavity accurately, and (2) to leave the placenta entirely alone, and allow it to be thrown off by nature's own processes.

I have never seen a case of the so-called interstitial variety of extra-uterine pregnancy, but I have just perused an admirable paper on "Interstitial or Tubo-Uterine Pregnancy," by that industrious and accurate describer Mr. Alban Doran, and find to my delight that my views obtain from his work most material support. The paper may be found in the twenty-fourth volume of the Obstetrical Society's Transactions, and the quotation of one sentence will convey all that I need give here: "Thus, there appear to be six examples of so-called interstitial fetation mounted as pathological specimens in London museums. It is most significant that, in all those where the conditions of the affected parts has been intelligibly displayed, the tubal origin of the 'interstitial cyst' is self-evident."

Dr. W. L. Reid (Glasgow) said that, from his own experience, he had doubt as to the wisdom of operation being had recourse to as soon as extra-uterine pregnancy was diagnosed, and whether the fetus were alive or dead. In the Glasgow Western Infirmary, there was under his care for some time a woman whose case was very peculiar, and had a bearing on the diagnosis. She nearly lost her life from bleeding into the peritoneum and peritonitis, when she was three months pregnant. After the general swelling disappeared, a tumor remained, in which, by-and-bye, the fetal heart was heard, and the limbs of the fetus were easily felt to move. This was regarded—the patient refusing a careful vaginal examination—as the growth of an extra-uterine fetus. She took fright, and left the hospital. About what would have been the full period if she had gone on quite normally, a child was born with a single pain; it fell on the floor. This child lived, and the mother recovered in an ordinary way. Apparently, this patient became pregnant again immediately before or after extra-uterine fetation had been established.

Dr. Murphy (Sunderland) said that all were very much indebted to Mr. Lawson Tait for the able manner in which he had opened the dis-

cussion; but he could not coincide with his views as to the relation between menstruation and ovulation. He believed that menstruation entirely depended on ovulation, and that the fimbriated end of the Fallopian tube only embraced the ovary during that time. In several cases of ovariotomy, when he had looked for it, he had only once seen the healthy ovary grasped by the tube, and in that case the patient was menstruating. Therefore, he could not help thinking that extra-uterine gestation generally was caused by the tube being sufficiently narrow to prevent the egress of the ovum, though sufficiently patulous to permit the ingress of the spermatozoa. It was extremely probable that abdominal gestation might be caused by rupture of a tubal pregnancy; but, in the majority of cases, it was caused by the spermatozoa escaping from the tube, and impregnating an ovum, either on the ovary or loose in the abdominal cavity; and the reason why the abdominal cases were not often recognized in an early condition was, that they were seldom fatal before the sixth month, and did not always give rise to symptoms during the first few months. As regarded treatment, the two forms differed very materially. In the tubal form, the danger of rupture and death, between the eighth and tenth weeks, was so very great, and the treatment by injections of morphia, or by electricity, was so very unsatisfactory, that most gynecologists would now admit that it was not only justifiable, but imperative, to open the abdomen in every case of rupture of the tube; and he would go further, and say it would be right to open the abdomen and remove the tube before rupture, if the diagnosis were sufficiently clear. As regarded the abdominal variety, he would wait, in the absence of symptoms, till towards the end of gestation, and then remove the fetus, stitching the cyst to the abdominal wall, and leaving an opening for the ova, and for the subsequent removal of the placenta. The most extraordinary case on record was probably one in which Kœberle removed the uterus, leaving the ovaries, with the result that a fistulous opening from the vagina to the uterus remained, and where extra-uterine, or, more properly speaking, non-uterine pregnancy, occurred.

Dr. Ward Cousins (Southsea) congratulated Mr. Tait on his success, and said that he feared the proportion of cases in which, after rupture of the ovum, operation was possible, was very limited. In many cases, the occurrence was rapidly fatal. Slow rupture, or rupture attended with moderate and recurrent internal hemorrhage, appeared to be the exception and not the rule. The diagnosis of early extra-uterine pregnancy was extremely difficult, but two symptoms appeared to be of especial value: 1, the history of pain and tenderness over the lower part of the abdomen; 2, the results of pelvic examination, in which generally the uterus was found displaced upwards or laterally, and was very imperfectly movable, with the os patent and large. Behind it, a round and fixed swelling was easily detected. It was then the history of a case and

the pelvic examination which were the great aids in diagnosis. Mr. Tait's experience warranted his confidence in nothing short of abdominal section; and the gravity of the symptoms in each case must be the guide in practice. When the later stages of pregnancy were reached, operative procedure appeared to be more likely to succeed after the death of the fetus than before that event, as all vascular activity was then over, and the great danger of severe hemorrhage was considerably reduced.

Mr. Burton (Liverpool), referring to Mr. Tait's remarks on the connection between ovulation and menstruation, said that he was inclined to accept fully Mr. Tait's views on the subject; that there was not nearly the connection between the two there was commonly supposed to be, and that the two processes were merely coincident. He had seen two cases quite recently in which menstruation went on regularly; but it was evident that no ovulation had taken place for several months.

Dr. Clement Godson, the President, agreed with Mr. Lawson Tait, that ruptures of the tubes in extra-uterine pregnancy were much more common than was thought. He had seen several cases of pelvic hematocele, which he had no doubt originated in this. A short time since, at St. Bartholomew's Hospital, he was on the point of suggesting abdominal section in a case of the kind, but the patient improved sufficiently to render it unnecessary. He quoted a case in which an extra-uterine cyst behind the cervix had been mistaken for a retroverted gravid uterus, and on two occasions reduction had been attempted.—*British Med. Journal.*

Abstracts and Selections.

I. — OBSTETRIC.

Parturition in Central Africa. — From a most interesting paper on this subject by Mr. R. W. Felkin, in the *Edinburg Med. Journal*, April, '84, we can form some idea of how our semi-civilized neighbors in Central Africa pass through that period which a false and ennervating civilization has made so critical to the women of America.

In the Madi district when a woman thinks that she is near delivery she abstains from meat, but eats a great deal of vegetable food. She cleans up her hut and sends her children away, and when labor commences she walks around the hut, while a friend places a deep layer of dry sand outside the hut, a short distance from the door. The woman sits down, places her feet against stakes driven into the ground, and clasps her legs, while friends take turns in supporting her back and kneading and rubbing her abdomen. The cord is cut about four inches from the child's body, with a stone knife, as a rule, but sometimes it is bitten. Should it bleed, the woman in charge takes the cord in her mouth and squeezes it between her teeth until all hemorrhage ceases, but it is never tied. The woman is

not permitted to eat meat for a week or more after confinement. She suckles the child for two years, and has no connection with her husband for six months after its birth.

In the Congo district an altogether different custom prevails. A branch of a tree is laid horizontally between two other trees, so that a woman can just grasp it firmly. When the pains come on she seizes the branch, places the feet apart, and bears down; in the intervals she walks about. The mother and child both receive baths immediately after the completion of the labor, the placenta being carried by a woman who dances before the party and throws it into the stream as far as possible.

Here, too, another custom is prevalent. A hole is dug in the ground in which a fire is lit; on this fire a pot is placed containing a decoction of herbs. The woman squats over this and allows the steam to moisten and soften the passages. It is held in great repute for making labors less difficult.

He also notes that a like plan, other plants being used, is very generally adopted by Arab women and natives married to Arabs, before coitus. It is said to contract the parts and cause great desire.

Speaking of operative interference he says:

So far as I know, Uganda is the only country in Central Africa where abdominal section is practiced with the hope of saving both mother and child. The operation is performed by men, and is sometimes successful, at any rate, one case came under my observation in which both survived. It was performed in 1879 at Kahura. The patient was a fine, healthy-looking woman of about twenty years of age. This was her first pregnancy.

I was not permitted to examine her, and only entered the hut just as the operation was about to begin. The woman lay upon an inclined bed, the head of which was placed against the side of the hut. She was liberally supplied with bananna wine, aad was in a state of semi-intoxication. She was perfectly naked. A band of mbugu or bark cloth fastened her thorax to the bed, another band of cloth fastened down her thighs, and a man held her ankles. Another man standing on her right side steadied her abdomen. The operator stood, as I entered the hut, on her left side, holding his knife aloft in his right hand, and muttering an incantation. This being done, he washed his hands and the patient's abdomen first with banana wine and then with water. Then, having uttered a shrill cry, which was taken up by a small crowd assembled outside the hut, he proceeded to make a rapid cut in the middle line, commencing a little above the pubes and ending just below the umbilicus. The whole abdominal wall and part of the uterine wall were severed by this incision, and the liquor amnii escaped. A few bleeding points in the abdominal wall were touched with a redhot iron by an assistant. The operator next rapidly finished the incision in the uterine wall; his assistant held the ab-

dominal wall apart with both hands, and as soon as the uterine wall was divided he hooked it up with two fingers. The child was then rapidly removed and given to an assistant, after the cord had been cut, and then the operator dropping his knife, seized the contracting uterus with both hands, gave it a squeeze or two. He then put his right hand into the uterine cavity through the incision, and with two or three fingers dilated the cervix from within outwards. He then cleared the uterus of clots and the placenta, which had by this time become detached, removing it by the abdominal wound. His assistant endeavored, but not very successfully, to prevent the escape of the intestines through the abdominal wound. The red-hot iron was next used to check some further hemorrhage from the abdominal wound, but I noticed it was very sparingly used. All this time the chief "surgeon" was keeping up firm pressure on the uterus, which he continued to do until it was firmly contracted. No sutures were put in the uterine wall. The assistant who had held the abdominal walls now slipped his hands to each extremity of the wound, and a porous grass mat was placed over the wound and secured there. The bands which fastened the woman were cut, and she was gently turned to the edge of the bed, and then over into the arms of assistants, so that the fluid in the abdominal cavity could drain away on the floor.

She was then replaced in her former position, and the mat having been removed, the edges of the wound, i.e., the peritoneum, were brought into apposition, seven thin iron spikes, well polished, like acupressure needles, being used for the purpose and fastened by strings made of bark cloth. A paste prepared by chewing two different roots and spitting the pulp into a bowl, was thickly plastered over the wound, a banana leaf warmed over the fire, being placed on top of that, and finally a firm bandage of mbugu cloth completed the operation.

Until the pins were placed in position the patient had uttered no cry, and an hour after the operation she appeared quite comfortable. Her temperature, as far as I know, never rose above 99·6° F., except on the second night after the operation, when it was 101° F., pulse being 108.

The child was placed to the breast two hours after the operation, but for ten days the woman had a very scanty supply of milk, and the child was mostly suckled by a friend. The wound was dressed on the third morning, and one pin was then removed. Three more were removed on the fifth day, the rest on the sixth. At each dressing fresh pulp was applied, and a little pus which had formed was removed by a sponge formed of pulp. A firm bandage was applied after each dressing. Eleven days after the operation the wound had entirely healed, and the woman seemed quite comfortable. The uterine discharge was healthy. This was all I saw of the case, as I left on the eleventh day. The child had a slight wound on the right shoulder, which was dressed with pulp and healed in four days.

Mr. Felkin, rather contrary to what we have been generally led to believe of these tribes, tells us that so far as he knows, labors are not so very easy in this part of the world, and are certainly not the painless, pleasureable affairs that some writers would have us believe. When a hard labor occurs and a woman remains a long time undelivered, the aid of a man is called in. He, however, uses no instruments, and should he fail, *which, he was informed, hardly ever happens*, mother and child perish, for abdominal section is not in vogue here. He was unable to ascertain what means the man employs to assist delivery.

But the italicized words convey to us the idea that the act of parturition is very seldom a *fatal* act among the semi-barbarous natives of Central Africa.—*Med. and Surg. Reporter.*

A Case of Placenta Previa, Mother and Child Living.—The following paper, by Edward Jacob Forster, M.D., was read before the Obstetrical Society of Boston, February 9, 1884:

The case which I present to-night seems of sufficient interest to report in full, as the method employed to terminate the pregnancy, manual dilation of the os, is one which is not as yet recognized by the text-books, although well known to members of this Society, as it was first suggested by one of our number, Dr. A. D. Sinclair, who prior to 1865 successfully delivered a case of placenta previa in this way. Since then he has reported nearly a dozen cases treated in the same manner and with the same result. Dr. Richardson, in an article in Volume 5 of the Gynecological Transactions, has strongly advocated this method of inducing labor when from any cause it may be necessary during the later months of pregnancy. In this vicinity, at least, it is, I believe the recognized practice superseding entirely the tedious methods formerly employed, as electricity, the hot and cold douche, the introduction of foreign bodies with a view of separating the membranes, or the dilators of Barnes.

When the placenta is situated over the os there can be no absolute safety for the mother until delivery is accomplished: a hemorrhage of such an extent as to rapidly prove fatal may take place at any moment, when once the placenta from any cause becomes separated from its insertion. In such cases as this this method seems particularly applicable; for while we have the means of rapidly terminating the pregnancy, the presence of the hand in the os can to a great extent control the flooding.

On the 8th of January, 1883, I was called to Mrs. R., forty-eight years old, born in Ireland, of previous good health. She had had ten living children without more than the usual amount of trouble, and one miscarriage eighteen or nineteen years ago. Her last child was born in November, 1875. While carrying her sixth child she menstruated throughout her pregnancy. This was probably a partial placenta previa.

At my visit late in the afternoon I found her in bed, and she gave me the following history of the present pregnancy: Motion was first noticed about August 6th, 1882. Her general health had been good with the exception of heartburn, for which she had taken magnesia and other remedies without relief. Her bowels were regular. About 5 p.m. Thursday, December 28th, without having any pains, she passed a few clots; again on Sunday, the 31st, there was slight flowing without pain. From then one week passed and she soiled only two cloths until the midnight before my visit, when she was awakened from sleep and found blood in the bed; the flowing lasted about half an hour, then slight pain in twenty minutes and more blood, little if any after and no pain except such as was caused by the motion of the child. Examination per vaginam settled the diagnosis.

Believing, as I have before stated, that while pregnancy lasted there was no safety for the mother, and that the serious character of the case needed prompt interference and careful management, I asked and obtained the services of Dr. W. L. Richardson in consultation. It was decided at once to proceed to induce labor. After stating to the patient the chances of leaving the case to nature consent was readily obtained. The patient was etherized, manual dilatation performed, and at 1:45 a.m., a living male child was delivered by version, the operation not lasting over three-quarters of an hour. There was comparatively but slight loss of blood. Dr. Richardson, who performed the version, found some difficulty in bringing down the foot and unavoidably fractured the femur; as he is present, the explanation of this accident I leave to him.

Dr. Richardson had gone home, Dr. Blood who had taken charge of the anesthesia was preparing to do the same, when the nurse hastily summoned us again to the bedside, where we found the patient in a state of collapse. The uterus was quickly seized and little hemorrhage ensued; brandy, quinine, and laudanum were freely used and the circulation was soon restored. While these remedies were given by the mouth three subcutaneous injections in the thigh were given, a drachm each of brandy and fluid extract of ergot, and a drachm of a solution of quinine containing five grains. The condition of collapse lasted long enough for the husband to become thoroughly alarmed and again summon Dr. Richardson. "January 16th. The sore spot on the left leg made by injecting brandy discharged pus freely. January 17th. Quinine-sore discharged but little." I regret to say that the foregoing notes by the nurse are the only ones which I have of the appearance of the ulcers caused by the subcutaneous injections, having lost those which I had carefully prepared as well as some sketches. Suffice it to say, each left a deep circular ulcer about an inch in width and more than that in depth, which were several weeks in healing: this, as regards ergot, is contrary to the teaching of Mundé, who says, in his "Minor Surgical Gynecology," he never

knew any trouble to follow its use. At the point where the injection of quinine was given an eschar was formed which remained quiescent for about three weeks, when, falling off disclosed one of the ulcers above mentioned. The quinine used was the sulphate. Edes recommends the use of hydrobromate or hydrochlorate for hypodermic injection as being less irritating; this we did not then know, or we might have had one less ulcer to annoy the patient.

An interesting point is the shock or collapse which followed the delivery and which perhaps might have been avoided if the rule, which I remember Dr. Gordon Buck, of New York, advocated some years ago in the *Boston Medical and Surgical Journal*, of giving an alcoholic stimulant always before etherization had been followed. It has been suggested to me that the condition of the patient which alarmed us was not shock, but was possibly due to the entrance of air into the circulation.

I am happy to record the ultimate recovery of the mother. Last week I heard the child was running about.—*Boston Med. and Surg. Journal.*

Sudden Death after Parturition without Apparent Cause.—In view of the recent discussion upon the above subject, the following cases reported to us by Dr. R. Farries of this city will prove of much interest. He writes:

In May, four years ago, I was called in consultation to see a Mrs. C., who had been in labor from about 7 A.M. It was then about 4 P.M. It was her fourth child. She was about thirty-five years old, a medium sized woman, and appeared to be in a good healthy condition, was not exhausted, and had only moderate pains. After a careful examination, nothing was found out of the normal except a hand presentation which was protruding from the vulva. Nothing contraindicating, I turned and delivered the child, which was very easily done, the whole operation lasting ten minutes. No chloroform was used. I left her in a cheerful and happy looking mood, expressing herself as very comfortable, and stepped into an adjoining room, while the attending physician relieved her of the placenta. In about five minutes the doctor called me to go back as there was something wrong. I got into the room just in time to see her expire. There was no hemorrhage. The uterus was reduced to the usual size and was firmly contracted.

On April 28th last, at 4 A.M., I was called in consultation to see Mrs. H., a very fat, thickset woman, about thirty-eight years of age, who had been in labor with her first child about ten hours. At about 1 A.M., chloroform had been administered, and occasional efforts made to deliver with the forceps, but without avail, as they invariably slipped off. At 4 A.M., when I arrived, the patient was well under the influence of chloroform. No progress had been made since midnight. Otherwise she seemed in good condition, except the vulva, which seemed unusually

swollen. The presentation was normal, and the only obstacle in the way was an abnormal elevation in the promontory of the sacrum. We concluded under the circumstances the best thing to do was to turn and deliver. This was done with considerable difficulty. The operation lasted probably half an hour, and although difficult, no desperate efforts had to be made to effect delivery. In a few minutes after the operation, and while the attending physician was delivering the placenta, the patient recovered so far as to ask a few questions concerning the event. The placenta arrived in due time, and the uterus contracted to about the usual size. The patient was properly cared for and appeared very comfortable. At this stage (about three-quarters of an hour after delivery) in less than three minutes she sank into a state of collapse and died. There was no unusual hemorrhage, and nothing in either case to indicate such a result. What did those women die of, and could anything have been done to avert such an unhappy termination?—*Med. Record.*

A Case of Extra-Uterine Gestation. Delivery of a Living Child per Vaginam. Removal of Placenta. Recovery.—The following unusual case was recently reported to the Obstetrical Society of London by Dr. Mathieson, of Ontario (Medical Times, May 31). In spite of the success of the operation in this particular instance, the general opinion of the Society was strongly against the vaginal operation, compared with abdominal section in such cases:—

The patient was aged thirty, the mother of five children. In November, 1880, menstruation (which had been regular, though scanty for two months) ceased, and abdominal pain began. In December, 1880, a lump was noticed low down in the left inguinal region. She was first seen by the author in March, 1881, when she had a tumor rising to the level of the naval, filling the left vaginal region and extending two inches to the right of the middle line. The uterus could not be mapped out. The sound passed three and a half inches, slightly to the right side and in front of the tumor. There was occasional pain in the tumor, tenderness, and a feeling "like jelly moving" which made her feel sick; painful micturition, irregularity of bowels. The tumor continued to enlarge, fœtal movement became stronger, and the pain more severe. On April 12, she had an attack of the pain and nausea, with pulse 146, temperature 103.6° F., cold extremities and cold sweat; relieved by morphia. A similar attack occurred on April, 23, another on May 2, and another about May 18,. On June 2, a somewhat similar attack was accompanied by pretty regular labor-like pains, independently of fœtal movements, and accompanied by a red discharge. The tumor continued to grow, and the most rapidly growing part was always the most painful. On June 13, occurred another attack like the last, but the pains was bearing down, though no bulging during them could be felt per vaginam. On June 28, she had

a very severe attack of pain during micturition, followed by attacks of syncope. The roof of the vagina was filled with a doughy mass, solid on deeper pressure. Operation per vaginam was at once decided on, and performed without chloroform at the patient's request, by cutting with a knife and tearing with the finger nail. The face of the child was found presenting, and was delivered by forceps easily. It was still born, but soon revived. The plancenta was at the posterior and left side of the cavity, its lower border some two inches from the vaginal roof. It was easily peeled off, a sponge soaked in perchloride of iron following it up. There was very little bleeding. The clots were removed from the cavity, its walls were touched with perchloride, and the operation ended. Much exhaustion followed the operation. The child weighed eight pounds seven and a half ounces, and appeared mature. The after treatment consisted in washing out the cavity antiseptically. The opening healed in three months. Severe pain in the side lasted for nearly two years after operation. She was seen in August, 1883, in excellent health, had no pain except after great fatigue; had menstruated normally for six months. The child was healthy, the largest, and a great deal the heaviest, of the family.—*The Boston Medical Journal.*

Combined Version in Placenta Prævia. — C. Behm (*Centrab. f. d. gessammte Therap.*) has used combined version in forty cases of placenta prævia without a single death. This must be regarded as an extraordinarily good result for a condition that ordinarily yields a mortality of forty per cent. Hofmier has already obtained similar results in the treatment of placenta prævia.

The operation is performed as follows: When dangerous hemorrhage comes on, the vagina should be tamponed until the cervix is closed. This being done, and the woman anæsthetized, the whole hand is introduced into the vagina and two fingers into the cervix. If the membranes present, the operator endeavors to rupture them with the finger, then draws the presenting part (unless it be the buttocks) to one side, at the same time making pressure from without so as to carry the buttocks down until he can grasp a foot. This is drawn through the cervix, so that the breech acts as a tampon on the lower segment of the uterus, and the placenta is pressed against the sides of the uterus. In central implantation of the placenta the finger should be pushed through the center.

After this version the operator waits for the spontaneous expulsion of the child, or at least complete spontaneous dilatation of the cervix in order to complete delivery. The duration of labor after version is from one-half hour to eleven hours, the average time being one or two hours.

The mortality for the children by this procedure is very great, but the chances for the mother are better. The mortality for the children, however, is no greater than by the old operation.

The causes of the great mortality of the mother under the use of the continuous tamponade is the infection through the blood and other matters adhering to the tampon.—*Medical News.*

The Carriers of Infection in Puerperal Fever—Lomer read a paper (*Deutsche Medical Wochenschr*), on this subject before the Gesellschaft für Feburtshilfe und Gynäkologie, on March 28, 1884. Pathologico-anatomical researches show these to be chain-forming, round, and non-moving micro-organisms, in the diptheritic layers of the uterine mucous membrane, in the uterine tissue, the peritoneal exudation, the lymph-spaces of the diaphragm up to the pleural cavity, in the kidneys and every other organ.

In two puerperal fever patients, Lomer found them once in pemphigus vesicles in large numbers fourteen days before death, in the other cases four days before death, in the blood. After death they were found in all the organs.

The culture-experiments of Dr. Franovik, not yet concluded, show that the pure cultures differ both from the micrococci of diptheria found by Löffler, and from the erysipelas-cocci found by Fehleisen. The inoculations of pure cultures made by Fränkel and Doléris have not, up to the present time, given constant and agreeing results.

Besides the chain-forming micrococci, other micro-organisms were found in puerperal fever, which seemed to indicate mixed infection. Clinically, however, these cases did not differ from the others in which only the chain-lke micrococci were found. Lomer further reports three cases of puerperal fever, in which the micrococci were not found even after the most careful search made in the Royal Health Office.—*The Boston Medical Journal.*

II.—GYNECIC.

Note on Choleoystotomy.—The patient upon whom I first did this operation, the first successful one of its kind, and the second ever attempted, has remained in perfect health from the date of her operation, August 1879, till now. I have performed the operation thirteen times, and all of the patients have recovered. One old woman died from suffocative catarrh some weeks after the wound was healed, and another case died of cancer of the liver, that being, in all probability, the cause of the distended gall-bladder, for I found no gall-stone which I could remove. Beyond the reach of my finger there was a nodule which, at the time, I believed, to be an impacted calculus, but this was not confirmed by any *post mortem* examination, and the subsequent history was that of cancer.

The remaining eleven cases are in perfect health, and the results are perfect with one exception, and that one, exception has taught me a great deal.

It has, in the first place, satisfied me that my much lamented friend Dr. Marion Sims, laid down principles from which we are not likely to depart with any advantage, and that he practically perfected this operation though he did not meet with a successful result in his own case.

Two modifications of the proceedings as advised by him have been suggested and have been put in practice, but they are not based on good reasoning, and have not been successful in practice, The first is a proposal made, by Sir Spencer Wells, to open the gall-bladder, remove the calculi, and to close it by a continuous suture without attaching it to the abdominal wound. So far as I know, this has been put in practice only once, and the result was fatal. A large quantity of bile was found in the peritoneum; and though this may not have been the cause of death, it is clearly a condition which is unlikely to contribute to success.

But the arguments against this proceeding are much stronger than the mere want of success in a single case. The gall-bladder is an organ subject to periodic filling and emptying, the latter process being accomplished by the contraction of its muscular walls, and this contraction is far more powerful than seems to be believed by any author I have consulted on this point. It also secretes an abundant quantity of clear albuminous fluid from its mucous surface, and this fluid contains—if I make a conclusion from a few rough experiments I have made on the subject—some kind of ferment. Even if no bile enter the gall-bladder, it speedily fills with this secretion and expels it; so that, if its duct were occupied by a calculus, and a wound in its base were closed by a continuous suture, and not fastened to the abdominal wall, as recommended by Sir Spencer Wells, it is difficult to believe that such wound would remain closed.

It is a matter of extreme difficulty—in fact, I may say it is impossible during the operation of cholecystotomy—to be quite certain that all the stones are removed from the duct. This canal is distended by the passage of a calculus, urged forward by the pressure of the secretion of mucus by the gall-bladder itself. So long as the stone is in the cystic duct, the contents of the distended gall-bladder consist entirely of this clear mucus. After the stone has passed the mouth of the liver-duct, the the bile flows into the gall-bladder, its passage into the duodenum is prevented, it is reabsorbed into the system and jaundice is produced. The cystic duct, in its normal state, is of much smaller diameter than the common duct, and the agonising pain of the passage of a gall-stone seems to be limited, in great measure, to this part of its journey, for it is rare, after these severe attacks, that jaundice occurs. After mild attacks jaundice occurs sometimes, and this indicates that the stone is passing, or has passed, through the common duct.

This leads me to say that, should cholecystotomy be performed whilst a stone is in the common duct, and the gall-bladder treated as recommended by Sir Spencer Wells, it is clear that the pressure required to force the

stone into the duodenum would be much greater than that required to tear open the stitched wound in the gall-bladder; extravasation of bile into the peritoneum ever afterwards would be inevitable.

Exactly the same argument is to be urged with still greater force against Langenbuch's proposal to remove the gall-bladder. The proposal is intrinsically absurd, for there can be no reason for removing any bladder merely because it has some stones in it. In five of my cases the bladder was suppurating and greatly thickened, but the removal of the stones and the drainage of the bladder for a few weeks completely cured this condition. If the gall-bladder were removed at the time that a stone was lodged in the common duct, the bile must all flow, just as in the other case, into the peritoneum. I understand that Langenbuch's proceedings have been fatal in three out of six cases, where it is known to have been tried. It would have been fatal in three of my own cases if I had employed it, for in three of them the stones were thus situated. In two I got the stones out, and in the third the stone is still there. Every drop of bile comes through the fistula, and not any appears to go through the intestines. The fistula is a mere pin-hole, and I have tried to close it three times, always with the result of bringing on agonising colic which lasts till the bile forces its way out through the fistula. This takes about fifty hours. It is clear that I shall not succeed in this way, and I propose to open the abdomen again, about an inch to the inner side of the gall-bladder, and crush the stone *in situ* by means of padded forceps applied outside the duct. If a better plan should occur to any of my readers I should be glad to have it, and if it should be practicable and successful, its originator shall have full credit for the suggestion.

The conclusion of the surgical experience in these cases is, that the entire possibilities of the treatment of gall-stone and distended gall-bladder are exhausted in Dr. Marion Sims' original paper published in this JOURNAL, that no further extension of it seems possible, and no further experimentation, such as that of Wells and Langenbuch, seems desirable.

The Palliative Treatment of Cancer of the Uterus.—Dr. J. E. Burton (in *British Med. Jour.*) thinks we are too apt to be discouraged when treating this disease, and to do nothing when the disease is in an advanced stage. Four measures can always be taken with more or less success:

1. We can attempt to bring about a more healthy action in the parts.
2. We can relieve pain.
3. We can moderate discharges, especially those of blood.
4. We can remove the fœtor of the discharges.

He suggests that the progress of a neoplasm can be checked, at least for a time, by exciting an inflammation which shall affect its immediate surroundings. Such a cordon of inflammation might be excited by the action of iodine or iodized phenol. He quotes Duploney for considering

that concentrated acetic acid is the most satisfactory for such a purpose. Gallard is much in favor of the actual cautery, which he thinks might be used freely as often as once in three weeks. Of other caustic agents, nitric acid, acid nitrate of mercury, bromine, sulphuric acid, bichromate of potassium, and resorcin have been used by the author, and are all of benefit in certain cases. Before caustics are applied to an exuberantly granulating surface, the granulations should be scraped away as thoroughly as possible.

For the relief of pain nothing better than opium, in some form, by the rectum, can be given.

To diminish the vaginal discharge any reliable astringent injection may be given. Subcutaneous injections of ergotin will have a good effect in controlling hemorrhage.

The fœtor, which is so offensive, can be controlled by vaginal suppositories of iodoform used night and morning. The author has also found that Chian turpentine lessens the quantity of the discharges and the tendency to hemorrhage—hence it is not valueless. He thinks a spare diet is to be preferred when it is possible.

In the discussion several well authenticated cases of cure of uterine cancer were related.

Veratria in the Pruritus of Women.—The *Medical Times and Gaz.*, April 12, 1884, says:

All acquainted with the incessant suffering which some women undergo from pruritus at the period of the menopause, must be very desirous of being made acquainted with a prompt remedy for so distressing an affection. Whether it arise from the presence of prurigo, urticaria, eczema, herpes, or whether it exist without any eruption at all, it is alike difficult to allay, as the great number of remedies which have been proposed testifies. Of these veratria is by far the most efficacious. When the pruritus is localized at the groins, arm-pits, wall of the abdomen, or behind the ears, gentle friction night and morning with an ointment consisting of thirty parts of lard and a quarter of a part of veratria, usually gives relief. When the pruritus is generalized, the internal administration of veratria is preferable. Two centigrammes should be made into ten pills, with licorice powder, of which from two to six should be taken daily, either half an hour before or three hours after meals. Only one should be taken at a time, an additional one being given each successive day until the maximum of six is obtained.—*Medical and Surgical Reporter.*

The Globus Hystericus.—Dr. Roth regards this symptom as due to a paræsthesia of the sympathetic. And as the pellitory root has been found useful in paralysis of the tongue and pharynx, the author was led to try it in globus. He gives from ten to twenty drops of the tincture of pyrethrum

four times a day. He reports six cases in which he employed this remedy with satisfactory results.—*Centralblatt für Gynäkologie*, May 3, 1884.

III.—DISEASES OF CHILDREN.

The Value of certain single Symptoms in the Treatment of Diseases of Children.—Pollizer contributes from his ripe experience some very valuable hints for the guidance of the less initiated. The single symptoms which he enumerates are in some cases pathognomonic, and in others are of great importance for differential diagnosis.

The first symptom is a strongly marked nasal or palatal cry. This is present in, amongst other complaints, syphilitic ozæna, hypertrophied tonsils, and paralysis of the soft palate; but where these can be excluded, it affords very strong presumption of retropharyngeal abscess. Dr. Pollizer relates that on one occasion he was examining a child, when the nurse passed through the room bearing another, four months old, in her arms. On hearing it give the nasal cry he stopped the nurse, but the mother affirmed that the baby was quite well. Pollizer introduced his fingers and found the expected swelling. This was incised, and a quantity of pus evacuated.

The second symptom is an excessively prolonged, loud toned expiration, with normal inspiration and without dyspnœa. This is an early symptom of chorea major, and may precede all other manifestations of the complaint. The author mentions that he was once called to see a case of supposed croup, but on observing this peculiar breathing he felt no hesitation in diagnosing chorea. The mother had observed this symptom about two hours, and stated that it appeared quite suddenly, when the child was apparently well and asleep. The next day he was informed that this breathing continued for another hour and then gave place to a singing semi-delirium.

The third single symptom is that of a high-thoracic, continued sighing inspiration. The author regards this as almost pathognomonic of weak heart, and of certain cases of acute fatty heart. The breathing differs from that of croup and other stenoses, in that, while the diaphragm is almost passive, the accessory muscles of inspiration are in vigorous action. The symptom is of especial value because it is early, and furnishes an indication for treatment long before the other signs—such as cyanosis, etc, show themselves.

Another single symptom of importance is the presence of a pause at the end of expiration. This serves to distinguish between laryngeal catarrh and croup, and when well marked, positively excludes the latter. In examining for it the room should be perfectly quiet, and the ear should be placed close to the patient's mouth. The author relates how he succeeded in diagnosing laryngeal catarrh from the mere presence of these pauses, in

a child who had been ill three days with stenotic breathing, hoarseness, and great somnolence. The laryngoscopist who was called in confidently expected to find false membranes, but none were visible, and the child was well in a few days.

Another symptom of which it is important to understand the significance, is the so-called respiratio stridula. It consists of a slightly noisy but otherwise normal inspiration and a loud bleating, interrupted (staccato) expiration; it continues day and night, sleeping and waking, with very rare free intervals of ten minutes to a quarter of an hour. It commences soon after birth, and lasts from eight to twelve months. To the physician unfamiliar with the condition it appears to be a serious matter, and to demand active measures; but it involves no dyspnea, and does not affect the nutrition or development of the child; moreover it is very obstinate to treatment, and ultimately ceases of its own accord. The author regards it, therefore, as being within physiological limits, and recommends no treatment.

The next series of symptoms relates to the brain, and the first is a remarkable drowsiness which makes its appearance without fever or other disturbance, and exists for some time. Pyrexia from any cause is enough to produce drowsiness in a child, but when the latter coincides with a normal temperature, and continues so from twenty to forty hours, it becomes a valuable symptom of commencing brain disease; and the same holds good when the drowsiness sets in upon convalescence from fevers when the pyrexial stages are passed. The only other conditions which can produce this apyrexial drowsiness are narcotic poisons and uræmia, but it is easy to differentiate these.

Another symptom of great value in the early diagnosis of brain disease is a very elevated, incompressible anterior fontanelle. This indicates not only increase in the contents of the skull, but also that the increase is due to something more dangerous than hyperæmia. It is more valuable when the child is wasted from any cause. When the swelling is so great as to resemble a wedge, and no trace of pulsation is present, the disease is probably intermeningeal hemorrhage or purulent meningitis of the convexity. The next series of symptoms relates to the character of the cry.

1. A violent, shrill cry, lasting two or three minutes, marked by anxious expression, and occurring about an hour after the child has gone to sleep, and repeated night after night, is probably due to the action of dreams on an irritable nervous system. It can be cured by a full dose of quinine an hour before bedtime.

2. A cry lasting frequently from five to ten minutes, and recurring periodically several times in the twenty-four hours, indicates, more especially if dysuria have been observed, spasm of the bladder, and can be cured by belladonna.

3. The cry accompanying defecation indicates, as is well known, fissure

of the anus. The author says nothing of operation for this and recommends aperients and ointments.

4. 'A violent, almost continual cry, the hands grasping the head, which is rolled round and round and buried in the pillow,' in little children, indicates otalgia.

5. A cry lasting days or weeks, increased on movement, and associated with profuse sweating and fever is rare, but may indicate acute general rickets.

6. The cry associated with chronic sleeplessness is difficult to relieve, though it frequently seems to have no bad effect on the child's nutrition. In some cases it seems to be inherited, as one of the parents is often subject to insomnia or hemicrania.

The next series of single symptoms have no particular interdependence. Among them are the following:

1. Collapse and immobility of the nostrils generally indicate hypertrophy of the tonsils.

2. A weakness and immobility following a short illness, and out of all proportion to such a cause, is very frequently the first symptom of infantile paralysis.

3. A single symptom of importance in a condition which is generally devoid of symptoms, is the habit of perpetually placing the hands before the face.

4. A stiffness of posture and gait, with a pained expression on changing position is an early symptom of spondylitis.

5. Obstinate vomiting after every kind of food, and lasting for weeks, indicates, in a child whose fontanelles are closed and whose cranial circumference is large, the supervention of acute upon chronic hydrocephalus. The author in conclusion gives the oft repeated warning against diagnosing a disease from a single symptom — a pathognomonic symptom being rare. He claims for his observations, where these are original, the merit of aiding diagnosis at a stage when treatment is apt to be of benefit. —*London Med. Record.*

Hereditary Ataxia.—Lucas-Championnière contributes the following to the *Rev. Mens. des Mal. de l'Enf.*, April, 1884:

This disease was described by Friedreich, and appears to be intermediate between multiple spinal sclerosis and progressive locomotor ataxia. Charcot has described the analogies and differences regarding all three of these conditions. The disease in question, which is also called Friedreich's disease, develops in childhood or in youth, thus differing from ataxia proper, which occurs during the second period of life. Like both of the diseases which it resembles, Friedreich's disease usually occurs in individuals who are affected with some form of nervous disease, as

hysteria, epilepsy, general paralysis, etc. Its peculiar feature is that it may attack several children in the same family. As yet it has been observed only a few times, Friedreich himself having seen only nine cases, in three families. An English writer (name not given) has seen five children, in a family of nine, who suffered with it. Its course is regularly progressive to a fatal issue, again resembling ataxia proper. As to the *lightning pains*, and habitual anesthesia or hyperesthesia in spots which occur in locomotor ataxia, these are wanting in hereditary ataxia; but there are present motor incoördination to an exaggerated degree, and impaired or abolished reflexes. Like multiple spinal sclerosis, the disease exhibits nystagmus, paralysis as to associated ocular movements, and disturbances of speech, while paralytic myosis and blindness are absent. There is also an absence of the bladder troubles which are so frequently seen in locomotor ataxia, also of the gastric and laryngeal crises, and trophic disturbances. It will thus be seen that this disease resembles true ataxia in respect to the spinal symptoms, while it presents characteristics which prevent mistaking it for multiple spinal sclerosis. The anatomical lesion is in the posterior columns, and also in the lateral fasciculi, which explains its resemblance to both of the diseases with which it has been compared. —*Archives of Pediatrics.*

Ovarian Tumor in a Child, by Dr. Edward Evers, St. Louis.—Ovarian tumors in young children are sufficiently rare to warrant the publication of every case observed. The following occurred in the practice of Dr. U. Harder of this city. A little girl, two and a half years old, was taken sick in the latter part of March. When the doctor first saw the girl she was suffering from a low form of fever, the temperature curve resembling that of typhoid fever. There was a moderate distension of the lower part of the abdomen, which was said to have been noticed a short time before, but disappeared only to return with the fever.

Under the treatment adopted the fever disappeared entirely at the end of a week, but the enlargement of the abdomen increased so rapidly, that when I saw the child in consultation with the doctor five weeks after it was first taken sick, the little girl measured 29 inches over the umbilicus. The abdomen was occupied by a solid tumor extending one inch above the umbilicus, and apparently further on the right side than on the left. Both lower extremities were œdematous, as also the integument of the abdomen and lower part of the back; the superficial veins of the thorax and abdomen were very much enlarged, forming a beautiful blue network over the entire anterior part of the body. The tumor was not movable in any direction, nor was it painful on pressure; the breathing was shallow and rapid, though at that time there were no signs of bronchitis or pulmonary trouble. The child had no fever, appetite good, bowels regular, the urine

normal in quantity and quality. My first impression was that we had an immense tumor of the spleen, but careful study and examination soon convinced us that it could be nothing but an ovarian tumor. At one time we thought we detected fluid above the tumor, but on introducing the aspirator we found that the needle entered a solid growth two inches above the umbilicus.

Towards the end of the sixth week the child again became feverish, and began to cough and finally died, seven weeks after the first appearance of the growth, with symptoms of pulmonary œdema. The post mortem revealed a tumor of the right ovary, 27 inches in its longest circumference, and 25 inches in the smaller, and weighing 8 pounds. It was adherent to the periosteum, bowels, and bladder, but the adhesions were easily separated by the hand. The tumor could have been removed without difficulty. Such an operation was suggested to the parents, but not urged, in view of the probable malignant character of the growth.

The microscopic examination proved the tumor to be sarcoma with not much normal structure left.

Quite a number of ovarian tumors in children have been observed, and I believe a successful ovariotomy on a child 3 years old is on record. All these tumors were fibroids or fibro-cystic growths. In the literature at present accessible to me I find no record of a sarcoma in the ovary of one so young.

The tumor here described has been preserved, and is in the possession of the Scientific Association of German Physicians of this city.—*St. Louis Courier of Medicine.*

Bibliography.

Shakespeare as a Physician. By J. PORTMAN CHESNEY, M.D., Professor of Gynecology in the Northwestern Medical College, St. Joseph, Mo., etc., etc. St. Louis: J. H. Chambers & Co., Publishers. 1884. Price, $2.25.

This book is exceedingly readable; it is out of the usual line of professional works, but is none the less acceptable. Every now and then the busy day's work unfits us for heavy reading except by mere chance of necessity, and then comes a time when the visits have been charged up, and a mental estimate of the day has been made, when we turn to the table for something to tone down the nervous excitement and make us fit for sleep. Just such a volume as Professor Chesney has furnished meets the want.

He claims that the book contains every word which in any way relates to medicine, surgery or obstetrics, found in the complete works of the writer. But what makes this collection, from the illustrious Bard,

especially entertaining is the running commentary and criticisms of the author; supplying cases and references in point that bring out more strongly the worderful genius of Shakespeare, and his remarkable knowledge of matters pertaining to the various departments of medicine. Doctors will do themselves a favor to buy this book and read it—not continuously, but in scraps and patches.

The mechanical work is unusually good, and the illustrations are pleasant to look upon in connection with the text.

The Pathology, Diagnosis and Treatment of Diseases of the Rectum and Anus. By CHARLES B. KELSEY, M.D., Surgeon to St. Paul's Infirmary for Diseases of the Rectum, etc., etc. With two chromo-lithographs and nearly one hundred illustrations. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1884.

The volume before us is really a fresh edition of a work on the same subject constituting one of the volumes of *Wood's Library* for the year 1883. The present edition, however, is enlarged by the addition of one chapter entirely new, that on Rectal Hernia, while the remaining portions of the book have been materially revised, bringing the management of the various topics fully up to date. A number of new wood cut illustrations have been added, and two beautiful chromo-lithographs, one giving a fine view of chancroids of the anus, the other of hemorrhoids. The work is to be commended as a help in a direction in which the profession at large is seriously ignorant. Price $4.00.

Legal Medicine. By CHARLES MEYMOTT TIDY, M.B., F.C.S., Master of Surgery; Professor of Chemistry, London Hospital, etc., etc.

This is the January volume of *Wood's Library* for 1884. The first and second volumes of this work constituted the Library for November and December, 1882, and were duly noticed at the time of issue. Volume III. contains elaborate chapters on the following topics: Legitimacy and Paternity, Pregnancy, Abortion, Rape, Indecent exposures, Sodomy, Bestiality, Live Birth, Infanticide, Asphyxia, Drowning, Hanging, Strangulation, Suffocation. We regret that in this case as in one or two previous, the publisher has separated the issue of different volumes of a work into different years, especially as the binding of each series is so distinct.

On the Pathology and Treatment of Gonorrhœa. By J. L. MILTON. Fifth Edition. New York: Wm. Wood & Co., 56 and 58 Lafayette Place. 1884.

This is the February number of *Wood's Library*. As this book of Dr. Milton's has reached the fifth edition, it would seem to have reached an age of sufficient maturity to place it beyond special criticism. It is cer-

tainly very excellent, particularly in its minute details of treatment. The last chapter is devoted to Gleet, and will be found very satisfactory upon a subject of great vexation to both patient and doctor.

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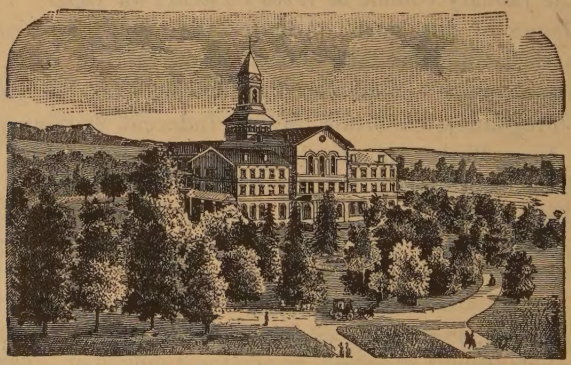

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